DOCUMENT RESUME

ED 138 091 FL 008 505

TITLE	Evaluation of the Impact of ESEA Title VII Spanish/English Bilingual Education Program. Vol. II: Project Descriptions.
INSTITUTION	American Institutes for Research in the Behavioral Sciences, Palo Alto, Calif.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C. Office of Planning, Budgeting, and Evaluation.
REPORT NO	AIR-48300-2/77-FR-IV
PUB DATE	Feb 77
CONTRACT	OEC-0-74-9331
NOTE	573p.; For related documents, see FL 008 504, 520
EDRS PRICE	MF-$1.00 HC-$30.13 Plus Postage.
DESCRIPTORS	Achievement; Achievement Tests; Affective Behavior; *Bilingual Education; Bilingualism; Cognitive Processes; Elementary Grades; *Elementary Secondary Education; *English; Language Arts; Language Proficiency; Language Skills; Mathematics; *Program Descriptions; *Program Evaluation; Reading Skills; Research; *Spanish; Student Attitudes; Teacher Attitudes; Teacher Characteristics; Vocabulary
IDENTIFIERS	Elementary Secondary Education Act Title VII

ABSTRACT

This volume presents descriptions of the thirty-seven sites and Title VII projects included in the study designed to determine the impact of bilingual education on students in the cognitive and affective domains in a nationally representative sample of Spanish/English bilingual projects funded through Title VII of the Elementary and Secondary Education Act. The information contained in the descriptions of each project was obtained by the American Institutes of Research (AIR) project staff who visited each site. Data were provided through direct classroom observation, teacher questionnaire responses, and individual interviews with teaching, school and project personnel. Projects and sites are coded rather than identified by name, and a chart is provided to aid the reader in locating projects categorized as to geographical region of the United States, rural or urban setting, the nature of the Hispanic student population served, and the average additional non-district per pupil cost associated with Title VII project students. (CLK)

Documents acquired by ERIC include many informal unpublished materials not available from other sources. ERIC makes every effort to obtain the best copy available. Nevertheless, items of marginal reproducibility are often encountered and this affects the quality of the microfiche and hardcopy reproductions ERIC makes available via the ERIC Document Reproduction Service (EDRS). EDRS is not responsible for the quality of the original document. Reproductions supplied by EDRS are the best that can be made from the original.

ED138091

FL

EVALUATION OF THE IMPACT OF ESEA TITLE VII SPANISH/ENGLISH BILINGUAL EDUCATION PROGRAM

Volume II: Project Descriptions

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

American Institutes for Research

AIR-48300-2/77-FR IV

EVALUATION OF THE IMPACT
OF
ESEA TITLE VII SPANISH/ENGLISH BILINGUAL EDUCATION PROGRAM

Volume II: Project Descriptions

Prepared
for
Office of Planning, Budgeting, and Evaluation
Office of Education
Washington, D. C. 20202

AMERICAN INSTITUTES FOR RESEARCH
Palo Alto, California 94302

February 1977

The research reported herein was performed pursuant to Contract No. OEC-0-74-9331 with the U.S. Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

This report is a product of the Bilingual Studies Center of the American Institutes for Research.

Director: Malcolm N. Danoff, Ph.D.

Associate Director: M. Beatriz Arias, Ph.D.

Instrument Development and Field Operations: Griselda Castro
Mary Teresa Delgado
Osvaldo Grijalva
Nancy Locks, M.A.
Barbara Pletcher, M.A.
Dorothy Reynolds
Bonnie Sisson

Manager for Analysis: Gary J. Coles, Ph.D.

Manager for Data Base Operations: Bruce Everett, Ph.D.

Data Base Operations: Naomi Bloom, M.B.A.
David Gross, Ph.D.

AIR Internal Statistical Consultant: Marion F. Shaycoft, M.A.

Manager for Logistical Operations: Martha Gregory

Logistical Operations: Pamela Carr
Spring Garrett
Angelica Hampel
Joan Hansen
Diane Hill
Leonard Lutomski
Standish Sibley

Secretary: Sara Reese

Style Editor and Publications Coordinator: Caroline M. Dillman, M.A.

Copy Editor: Donald Reed

CONTENTS

Preface v

Key to Project Descriptions vi

Project Descriptions

Project 1 1-1
Project 2 2-1
Project 3 3-1
Project 4 4-1
Project 5 5-1
Project 6 6-1
Project 7 7-1
Project 8 8-1
Project 9 9-1
Project 10 10-1
Project 11 11-1
Project 12 12-1
Project 13 13-1
Project 14 14-1
Project 15 15-1
Project 16 16-1
Project 17 17-1
Project 18 18-1
Project 19 19-1
Project 20 20-1
Project 21 21-1
Project 22 22-1
Project 23 23-1
Project 24 24-1
Project 25 25-1
Project 26 26-1
Project 27 27-1
Project 28 28-1

CONTENTS (Continued)

Project 29 29-1
Project 30 30-1
Project 31 31-1
Project 32 32-1
Project 33 33-1
Project 34 34-1
Project 35 35-1
Project 36 36-1
Project 37 37-1

PREFACE

This volume presents descriptions of the sites and Title VII projects included in the Impact Study. (Volume I contains a description of the Impact Study and interim findings.)

The information contained in the descriptions of each project was obtained by the American Institutes for Research (AIR) project staff who visited each site. Direct classroom observation, teacher questionnaire responses, and individual interviews with teaching, school, and project personnel provided the data on which these descriptions were based. In accord with confidentiality arrangements, the projects and sites have been coded rather than identified by name.

A special chart has been included to aid the reader in locating projects categorized as to (1) geographical region of the United States, (2) rural or urban setting, (3) nature of the Hispanic student population served, and (4) the average additional non-district per pupil cost associated with Title VII project students.

KEY TO PROJECT DESCRIPTIONS

Project Number	Geographical Area					Community Characteristics		Primary Hispanic Ethnic Group(s) Served by the Project				Non-District Additional Per Pupil Cost			
	Northeast	South	Midwest	Southwest	West	Urban	Rural	Mexican-American	Puerto Rican	Cuban	Other	<$250	$250-500	$500-750	>$750
1			X			X		X	X						X
2	X					X			X						X
3				X			X	X							X
4	X					X			X				X		
5	X					X			X		X	X			
6	X					X			X				X	X	
7	X					X			X		X				X
8					X	X		X						X	
9					X	X		X						X	
10				X		X		X					X		

(continued)

KEY TO PROJECT DESCRIPTIONS (Continued)

Project Number	Geographical Area					Community Characteristics		Primary Hispanic Ethnic Group(s) Served by the Project				Non-District Additional Per Pupil Cost[a]			
	Northeast	South	Midwest	Southwest	West	Urban	Rural	Mexican-American	Puerto Rican	Cuban	Other	<$250	$250-500	$500-750	>$750
11	X					X			X						X
12				X			X	X				X			
13				X		X		X						X	
14					X		X	X							X
15				X		X		X					X		
16	X					X			X		X				X
17				X		X		X					X		
18					X	X		X					X		X
19				X			X				X			X	
20	X					X			X					X	

[a] Multiple entries reflect variation between schools.

(continued)

KEY TO PROJECT DESCRIPTIONS (Continued)

Project Number	Geographical Area					Community Characteristics		Primary Hispanic Ethnic Group(s) Served by the Project				Non-District Additional Per Pupil Cost[a]			
	Northeast	South	Midwest	Southwest	West	Urban	Rural	Mexican-American	Puerto Rican	Cuban	Other	<$250	$250-500	$500-750	>$750
21				X			X	X					X	X	
22	X					X			X		X		X		
23			X			X		X							X
24				X		X		X					X		
25				X			X	X					X		
26					X	X		X					X		
27		X				X				X	X		X		
28					X	X		X					X		X
29	X					X			X		X			X	
30					X	X		X				X	X		

---

[a] Multiple entries reflect variation between schools.

(continued)

KEY TO PROJECT DESCRIPTIONS

Project Number	Geographical Area					Community Characteristics		Primary Hispanic Ethnic Group(s) Served by the Project				Non-District Additional Per Pupil Cost[a]			
	Northeast	South	Midwest	Southwest	West	Urban	Rural	Mexican-American	Puerto Rican	Cuban	Other	<$250	$250-500	$500-750	>$750
31					X		X	X					X	X	
32			X			X		X	X						X
33	X					X			X		X				X
34				X			X	X				X	X		
35				X			X	X					X		
36	X						X		X						X
37	X					X			X					X	

[a] Multiple entries reflect variation between schools.

PROJECT 1

PROJECT INFORMATION

Project Context and Target Population

Project 1 began in 1972. The District is located in a city with a population of approximately 180,000 about thirty-five miles from a larger city where a university is situated and about sixty miles from the state capital. In 1970 there were 10,000 Spanish-surnamed people living in the city where the District is located. It has been estimated that there is a growth of about 5% per year, indicating that the Hispanic population has probably increased to approximately 13,000. Employment opportunities are diverse, with the automobile and furniture industries offering the greatest number of jobs. The Hispanic population is somewhat mobile as many people are migrants from Texas and/or Mexico, either seeking permanent employment or seasonal farm work. Of the total Spanish-surnamed population, 4% is employed in white collar or professional positions. The socioeconomic status is average.

There are sixty-five schools in this district, three of which are participating in the Title VII program. The total school population at School A is 376; at School B the total population is 247. A significant number of Spanish-speaking students reside in the school boundaries of these schools: School A has a 33.7% and School B a 43.7% Spanish-surnamed population. The majority of students in the project at School A are English-dominant bilinguals while the majority at School B are essentially Spanish monolingual.

Project 1 operates in kindergarten through grade 5. (Those students who are not involved in the Title VII project and who are in need of bilingual instruction are being serviced by a bilingual mobile unit.) Project students come from families with an average annual income between $2,000 and $5,000, with 95% of the student population qualifying for the free lunch program. The project schools are located in the southwest part of the city where mixed single-unit and multiple-unit dwellings are interspersed with factories and a major highway. The target population consists of approximately 35% Mexican-Americans and Puerto Ricans, 25% blacks, and 40% white non-Hispanic. One quarter of the students enter and leave during the first half of the school year. Approximately 164 students have made one kind of change or another--within the District, to a non-bilingual program, or to or from another state. Some Spanish-dominant students have transferred to the Title VII program at School B.

Goals and/or Objectives

The major goal of the Project is to enable students of limited English-speaking ability to progress effectively through the educational system. Instruction is given in English and Spanish.

In observing the program operation at School A, it was noted that the students are receiving a great amount of English as a Second Language (ESL) instruction with little emphasis placed on a regulated course of Spanish Language Arts. Students receive instruction in the bilingual resource room, which is serviced by two bilingual teachers and three bilingual aides. The amount of time that any given student receives ESL instruction in the bilingual resource room is determined by the teacher. The Spanish-dominant student spends more than half a school day in the resource room. The information gathered from the interviews held at School A suggests that the staff involved in the bilingual project perceive it to be a remedial program for native-Spanish speakers. The main goal is to train the students in the areas of English oral language development, comprehension, and the mastering of basic speech patterns to provide them with a basic foundation of English language usage for everyday life.

Project Staff

The project is staffed by one project director, five bilingual resource room teachers to work with teachers and students (thirty-seven rooms), one community liaison aide, fifteen paraprofessional aides, and a project secretary. In addition, the project is supported by district personnel and occasional volunteers. The ethnic composition of the project staff is 50% Hispanic and 50% white non-Hispanic.

The information gathered from the Teacher/Teacher Aide Questionnaire from the Intensive Sample at School A shows that the teacher is equipped with a B.A., a master's degree in the field of education, and a regular credential with no specific training in the area of bilingual-bicultural education and has been involved since the start of the program. The aide in the classroom works part time and is non-credentialed with one to three years' experience in the program.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study		
Total number of questionnaires received	6	3
Highest earned college degree:		
No degree		3
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	3	
Teaching credential only	1	
M.A. or higher	2	
No response		
Type of state teaching credential held:		
Non-credentialed		2
Temporary, provisional, partial-fulfillment, or emergency	2	
Regular credential	4	
Bilingual-bicultural teaching credential		
No response		1

	Teachers	Aides
Years of full-time teaching experience:		
Less than 1 year		
1 year	1	
2 years		
3 years		
4 years	1	
5-9 years	2	
10-19 years	2	
20-29 years		
30 or more years		
No response		3

Years of teaching in a bilingual program:

Less than 1 year	1	1
1 year	1	
2 years		1
3 years		
4 years		
5 years		
More than 5 years	2	
No response	2	1

Amount of college training specifically devoted to bilingual-bicultural education:

1-5 quarter units (1-3 semester hours)	2	
6-15 quarter units (4-10 semester hours)		
16-30 quarter units (11-20 semester hours)		
More than 30 quarter units (more than 20 semester hrs.)		
No college training in bilingual-bicultural	2	2
No response	2	1

Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:

1 day or less	1	1
2-15 days	1	
15-30 days	1	
More than 30 days	1	
None		1
No response	2	1

Sources of Project Funds

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$337,000
Other Federal and State	-0-
Other	-0-
TOTAL	$337,000

- Per pupil $1,310.00

In addition to the above, the following funds were designated for bilingual project schools:

Federal and State	$26,500
Other	-0-
TOTAL	$26,500

- Per pupil $76.81
- Total per pupil additional funds for bilingual project participants $1,386.81

CLASSROOM INFORMATION

Major Features of Classroom Observed

Magic Circle, a human development program based on self-concept, is conducted in the classroom for 1 1/2 hours weekly. The program was initiated by Valdo Palomares, and it operates in terms of a circle. The class of twenty-two students is divided at random into groups of seven or eight. An equal amount of oral participation from all members of the group is necessary. The locus of control is both the teacher and the students. The goal of the group is to strengthen listening skills, self-esteem, sense of accomplishment, concept of success, and competition with oneself. These goals are discussed orally by means of the triad of self-perception, which questions how one perceives oneself, how others perceive each other, and how one thinks others perceive him/her.

Impact Study Sample

The following information is based on discussions with project staff and on classroom observations in the of the project's participating bilingual classes at School A.

A fifth-grade class was randomly selected for the Intensive Study. The class has an enrollment of twenty-two students: two black Americans, seven Mexican-Americans, and thirteen white non-Hispanics. The classroom teacher has over five years' teaching experience and has a facility in Spanish. He instructs all academic subjects with the exception of Spanish Language Arts and English as a Second Language (ESL). He uses an objective reference list geared to appropriate grade level from which students are tested twice yearly.

Instructional Strategies for Grade 5

English Language Instruction for Native-English Speakers

There are five bilingual, one Spanish-monolingual, and sixteen English-monolingual students in this class. The Spanish-dominant student receives extensive ESL instruction four to five hours daily. The classroom teacher is white non-Hispanic and has enough command of the Spanish language to be able to respond to the Spanish-dominant student when necessary. In such cases, instruction is individualized on the dyadic level, and, if the aide is available (she works halftime), she takes over the classroom or supervises seat work. Thie classroom is conducted totally in English.

English Language Arts, on a formal basis, is taught forty-five to sixty minutes daily. The curriculum includes phonics, vocabulary, punctuation, synthesis of main ideas, analogues, word association, sequence of ideas, cause and effect relationships, inferences, synonyms, antonyms, homonyms, characterization, and grammatical structures.

One day a week, the students watch "Cover to Cover," an educational television program which introduces students to a variety of reading materials and styles, both fiction and nonfiction. The teacher then holds a discussion period for about twenty minutes following the program. The school library is also an integral part of the Language Arts and Reading program. Once a week, a different student delivers an oral book report to the class and answers questions.

The reading program is based on the Ginn 360 series, which is written for grade levels 1 through 6. The class period is forty-five minutes a day and meets five times a week. The class is made up of seven groups, each being taught by a different teacher at a different or the same grade level, unrelated to the reading level of the student. The one student who is receiving ESL instruction uses the basic reader of the Scott Foresman Series.

The most advanced readers are receiving enrichment in Reading from the classroom teacher during the lunch period four times a week. They spend their time doing individualized projects involving a large amount of creative writing.

English Language Instruction for Native-Spanish Speakers

ESL is taught to a group of students chosen on the basis of scores on the Peabody Kit and the Inter-American test. At the time of observation, one student was receiving ESL instruction for half the school day. This student is grouped with others from the same or different grades. Most of the time is spent on oral language development (vocabulary expansion, phonics, basic sentence structures, and spelling).

Spanish Language Instruction for Native-Spanish Speakers

The entire fifth-grade class that was observed does not receive Reading in Spanish. Six are scheduled to receive such instruction thirty to forty-five minutes daily, depending upon homeroom class activities and student needs. The majority of the time in the resource room is devoted to English as a Second Language, while little emphasis is placed on an equivalent course of Spanish instruction in the areas of Language Arts and Reading as a first language for participants whose native tongue is Spanish. The reading level of the student is assessed by the teacher through observation, oral language facility, and Spanish-comprehension skills. The students receiving such instruction are taught by a bilingual aide. The Laidlaw Series in

Spanish is the primary instructional material used in the resource room. The five students are using Level II. The student who is doing work primarily to build skills in English as a Second Language is not being encouraged to read in Spanish.

Mathematics Instruction

Students are not grouped formally in Mathematics. Individualized instruction is given by the teacher or aide when available to meet certain needs in problem areas. The major textbook that is used is the Holt School Mathematics Series - Level 5. Mathematics, as well as other subject areas, is reinforced in Spanish in the resource room for the one student who is given intensive ESL instruction. At present, the students are learning all that is included in the objectives for fifth grade. About 2 1/2 hours are spent weekly on individualized instruction. The teacher uses materials which he has produced for seat work and incorporates Mathematics games into the program.

Cultural Component

Spanish language as it related to Hispanic culture, i.e., Mexican-American in this case, is emphasized in the resource room for the six who receive Spanish language instruction. Stress is placed upon the correct use of Spanish grammar and reading comprehension. Development of communication skills among peers and self-identity as Mexican-Americans is not stressed.

Parent and Community Involvement

All parents of students confer at least once or twice a year with the teacher in a formal meeting. At various times during the year, parents confer with the principal of School A who is directly involved with the program. About one quarter of the project parents attend project- and district-sponsored functions, such as open houses or classroom parties.

PROJECT 2

PROJECT INFORMATION

Project Context and Target Population

The project operates within a district which has thirteen high schools, sixty-seven elementary schools, four junior high schools and two middle schools serving a total population of 54,562 students. There are two schools operating under Title VII as bilingual project schools. The project includes sixteen classes, two at each grade level, kindergarten through grade 6, serving 344 students. At School A, 310 students are participating in the project, and there are approximately twenty students in each classroom. At School B there are forty students participating in the project.

Students from all over the city may apply for entrance into the project; however, in all cases placement of students must be confirmed with parents. Hispanic students participating in the project are Spanish-language-dominant and limited-English speakers; the white non-Hispanic and black students are English-dominant.

At School A, 75% of the student population is English dominant and 50% is of Puerto Rican descent, 3% South American, 16% Native American, 13% black, and 18% white non-Hispanic. Project students come from families with an average annual income of from $8,000 to $9,000 who live in an urban area in mixed single-unit and multiple-unit dwellings. The target population is approximately 75% Spanish surname, 10% black American, and 15% white non-Hispanic. According to the principal interviewed, the mobility rate is high--35% of the students leave the city to return to Puerto Rico but eventually return to the United States and end up in an adjacent state where employment opportunities for the parents seem to be more plentiful.

Goals and/or Objectives

The major goals of the bilingual project are (1) attainment of equal competency in the English and Spanish languages to ensure proficiency in all areas of social and academic concern; (2) continuous staff development; (3) community and parental involvement, and (4) curriculum materials development.

Project Staff

The project is staffed by eighteen full-time teachers, nineteen aides, one social worker, one school/community liaison, one curriculum materials specialist, one typist, one library aide, one stenographer-secretary, and the Project Director. In addition, the project enjoys the services of district support personnel. All project staff are bilingual with 50% of Hispanic descent and 50% white non-Hispanic. The Project Director has coordinated the total activities of the project since its inception in 1971. She works with students and parents to determine and address their needs. The entire staff works closely with the parents and community, as does the advisory board act in a advisory capacity in all aspects of the program.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study		
Total number of questionnaires received	10	10
Highest earned college degree:		
No degree		10
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	5	
Teaching credential only	1	
M.A. or higher	4	
No response		
Type of state teaching credential held:		
Non-credentialed		10
Temporary, provisional, partial-fulfillment, or emergency	6	
Regular credential	4	
Bilingual-bicultural teaching credential		
No response		
Years of full-time teaching experience:		
Less than 1 year	1	1
1 year	2	
2 years	2	2
3 years	3	1
4 years	1	2
5-9 years	1	
10-19 years		
20-29 years		
30 or more years		
No response		4

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	4	1
1 year	1	
2 years	1	2
3 years	2	2
4 years	2	2
5 years		1
More than 5 years		1
No response		1
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)	2	2
6-15 quarter units (4-10 semester hours)	3	2
16-30 quarter units (11-20 semester hours)	2	1
More than 30 quarter units (more than 20 semester hrs.)	1	2
No college training in bilingual-bicultural	2	2
No response		1
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		3
2-15 days	6	2
15-30 days	2	
More than 30 days	2	2
None		1
No response		2

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$294,261	
Other Federal and State	-0-	
Other	-0-	
TOTAL	$294,261	
• Per pupil		$867.00

In addition to the above, the following funds were designated for bilingual project schools:

Federal and State	-0-	
Other*	$274,000	
TOTAL	$274,000	
• Per pupil		$438.000
• Total per pupil additional funds for bilingual project participants		$1,305.00

* Funds from local board of education

CLASSROOM INFORMATION

Major Features of Classrooms Observed

One class at each grade level served is English dominant, where English is the language of instruction and the classroom reflects the North American culture, while the other is Spanish dominant, where Spanish is the language of instruction and the classroom reflects the Hispanic and Puerto Rican cultures. All students are instructed in their dominant language during the first part of the day when the content subjects are taught (Mathematics, Reading, Language Arts, Science, and Social Studies). The students exchange classrooms for the second part of the day; approximately 2 1/2 hours is spent on instruction in the second language daily. At this time the content areas of Language Arts, Reading, and Mathematics are reinforced. In the afternoon, a second-language approach to learning is emphasized. The major concepts are developed in both the morning and afternoon classes, but the instructional techniques vary. Concepts related to Hispanic history and culture and North American history and culture are integrated into all curriculum areas and are intrinsic to the total instructional program.

In grade 5 the Reading program for the English-dominant component is totally individualized, with a lesson plan for each student. The students choose their own material from an enrichment library in the classroom or from the school library with the approval of the teacher or of the aide. The student's lesson plan is developed contractually at conferences with the teacher twice a week, lasting five to twenty minutes, the major goals being to enrich vocabulary, teach dictionary usage, test comprehension, and develop the ability to summarize and synthesize main ideas.

Impact Study Samples

Out of a total of sixteen bilingual classrooms in Project 2 at School A, the grades range from pre-kindergarten through grade 6. There are two classrooms at each grade level--one in each language group. Six classrooms, grades 2, 3, and 5, were selected at random for observation.

Instructional Startegies for Grades 2, 3, and 5

English Language Instruction for Native-Spanish Speakers

The three teachers involved are English-dominant bilinguals. They spend the afternoon on oral language development drills with Spanish-dominant students. English sentence drills are used to develop an understanding that the English language has its own system of sounds and sentence patterns. Efforts are concentrated in vocabulary building, spelling, listening comprehension exercises, auditory discrimination drills, grammatical structures, substitution drills, sentence patterns, and the interpretation of ideas. To supplement this instruction there is extensive use of word games, storytelling, experience charts, retelling of stories in logical sequence, and flashcards.

The specific subject areas which were taught in the dominant language in the morning are reinforced later in the day to develop an awareness that style and format differ in English. Students develop the ability to compare and contrast the Spanish and English languages. The main intent of the English as a Second Language (ESL) instruction is to develop communication skills, oral followed by written. The teachers stress capitalization, punctuation, creative writing, spelling, choral reading, and sharing as part of the daily program. All instruction and drills are within the framework of second-language learning focusing on pronunciation, phonics, dialogues, and controlled conversation. The use of Spanish at this time is allowed only when absolutely necessary.

Students are grouped according to ability in English. Instruction and lesson plans are individualized based on student needs. The classes are divided into reading groups by the teacher and regrouped based on teacher observation and assessment of progress. All students are involved in the Ginn 360 Reading series, at appropriate levels, with workbooks and supplemental reading materials for enrichment purposes. The teachers and aides spend approximately twenty minutes daily with each group on oral reading practice (intonation, pitch, juncture, dramatization, story illustration, and audience reading), comprehension skills, and expressive language practice practice (retelling stories, verification of facts, sequence of ideas, and basic conclusion drawing).

No text is used for beginning English learners. For these students, instruction is individualized, and the entire time is spent on oral language development and word analysis (phonetic and structural).

English Language Instruction for Native-English Speakers

The teachers involved are English-dominant bilinguals. Classes are not grouped at any level for English Language Arts instruction. Approximately five hours a week is spent on Reading, writing, and language development skills within the framework of the curriculum designated by the Board of Education for all grade levels.

To develop an understanding of English language usage, 2 1/2 hours is spent weekly on spelling and basic grammatical structures. The students have both oral and written composition practice, experience charts, vocabulary expansion exercises, punctuation, and sentence form drills. The student is taught to develop the ability to recognize that each language has its own sound symbol system, and the aide in this classroom takes an active part in all activities. She acts as both a teaching agent and a role model for the students. She takes a supportive role in the classroom rather than acting as an instructional model.

The Reading series used is the Ginn 360, at appropriate levels ranging from three to eight. The teacher introduces Language Arts concepts as an integral part of the daily reading program. The classes are grouped according to ability and regrouped throughout the year on the basis of teacher observation and assessment, and a review of the Metropolitan Achievement Tests scores in Reading comprehension. The students work on developing various decoding and encoding skills. The aides assist in individual instruction on workbook exercises and teacher-made materials for approximately twenty minutes daily.

Spanish Language Instruction for Native-Spanish Speakers

Spanish-dominant students are grouped together. The teachers and aides involved are Spanish-dominant bilinguals. The curriculum is much the same as it is for Language Arts instruction for English-dominant speakers. The major textbook used is La Lengua Española at appropriate grade levels. Efforts are concentrated on developing oral and written communication skills in Spanish. The classes are not grouped for Language Arts instruction.

All students are grouped according to grade and Reading levels in Spanish. This is partially based on teacher observation, assessment of progress, and the Inter-American tests scores in Reading comprehension. The major texts used are from the Laidlaw series. The lowest level groups are nonreaders (grade 2) and spend approximately one hour daily with the aide who has developed individualized lesson plans to develop Reading readiness skills in Spanish. The major focus in Spanish Reading is much the same as it is in English. Time is spent on auditory discrimination exercises, word analysis, synthesis of main ideas, and recollection of facts in sequence. The teachers spend approximately twenty to thirty minutes with each group (three or four groups per classroom) developing encoding skills. The students are given expressive language, comprehension, and oral reading practice daily. The importance of thought sequence in oral and written communication is also stressed.

Spanish-Language Instruction for Native-English Speakers

The students in these classrooms are English dominant. All the teachers involved are Spanish-dominant bilinguals. Approximately 2 1/2 hours per week are spent on pronunciation, vocabulary expansion, sentence pattern drills, spelling, and phonetic exercises. In learning Spanish as a Second Language (SSL), the teachers stress through their lesson plans and instruction the concept that words and word order convey meaning. Students are taught to develop the ability to listen to oral language for comprehension and interpretation. The overall objective is to gain equal competency in Spanish and English with an understanding of the grammatical structures in each language. Students are grouped by the teachers according to language proficiency levels.

Mathematics Instruction

The classes are divided by the team teachers according to language dominance. Mathematics is taught by the dominant-language teacher in the morning and reinforced in the afternoon within the framework of second language learning. At this time the teacher not only reinforces mathematical concepts but also develops vocabulary. The major textbooks used are Math Around Us and Matemática Para La Educación Primaria K-6 at appropriate grade level. Instruction is based on the Board of Education curriculum for grades 2, 3, and 5 in Mathematics. Students are not grouped for Mathematics instruction. Approximately 1 1/2 hours is spent daily on Mathematics activities. The curriculum includes oral and written instruction, games and drills to aid in developing appropriate skills in operation practice (addition, subtraction, multiplication, division), new math (sets and subsets), geometry, basic measurement practice (time and weight concepts), number sequence, and place values.

Cultural Component

Each day students in both language groups receive Social Studies instruction focusing on Hispanic (Puerto Rican) culture and North American culture. Students take field trips to local government agencies, museums, historical sites, and different communities within the area to gain first-hand information. Teachers draw from the students' own experience to achieve the objectives. To foster cultural pride and to develop interest in historical events, holidays of all cultures are represented in the program as they arise. The Spanish-dominant classrooms reflect and promote Puerto Rican culture and heritage in all curriculum areas, just as the English-dominant classrooms promote North American culture and heritage. The objective of the Social Studies curriculum is to develop in all program participants a more positive self-concept and an increased pride in their dominant language and heritage, as well as an appreciation of other cultures.

Parent and Community Involvement

Every other month a parent-oriented activity, such as the celebration of Puerto Rican Discovery Day, is held. In October and May, an Open House to which the community is invited is held. At this time parents are given the opportunity to see their children work, to speak with the teachers and administrative staff and to voice particular concerns or suggestions regarding the bilingual program. At report card time parents meet with the teachers to discuss their children's progress. In cases when the parent(s) couldn't attend conferences, the teachers have gone to their homes. The social worker and community aide help in communicating program goals to project staff and non-participating community members. Parents and the community participated in a basic adult education program where Reading, writing, and Mathematics were offered in Spanish for the Spanish-dominant parents and basic conversational Spanish for English-dominant parents.

PROJECT 3

PROJECT INFORMATION

Project Context and Target Population

Project 3 is situated in a small rural town in the Southwest, approximately 150 miles from the nearest metropolitan center. The town is the county seat in an agricultural area where 60% of the nation's onions and 90% of the spinach are grown. Until 1969 the 15% white non-Hispanic population controlled all facets of town, school and county government, to the exclusion of the 85% Mexican-American populace. Changes have occurred since 1969 resulting in a shift of local and county politics in favor of the Mexcian-American population. Nevertheless, 41% of the families in the area still earn an income under $3,000, according to the 1970 Census, and 91% of the children participate in a free-lunch program.

Although the 1970 census reflected an ethnic representation of 85% Mexican-American, 14% non-Hispanic whites, 1% blacks and others, this is not an accurate picture of the present situation. There has been an exodus of the white non-Hispanic population since 1970. The population of Mexican-Americans is now higher. In fact, the three principals of the schools that were observed for the Impact Study, stated that Mexican-Americans comprise 99% of the student population. Although there are no exact figures to document the language of the community, two of the principals who were interviewed estimated that the greater percentage of families were bilingual with a sizable minority being monolingual Spanish. It is noteworthy that the preferred language of students both in and out of school is Spanish, as is true in other towns or cities which border Mexico.

Ninety-nine percent of the students, and therefore of the community, are Mexican-American. Most families reside in single-family dwellings on small lots, and their major occupation is farm labor. The mobility rate ranges from 70% to 30% at the target schools. Typically, as soon as school closes in May, the migrant families leave the area, only to return the following October or November for their children to complete another school year and to resume their seasonal work at the local processing plant. Most of these families earn under $4,000 per year. The project has been federally funded since the 1971-72 school year. (Previously, a locally funded effort had been established and had received an initial OE grant to begin a satellite bilingual program.)

The district is the first in the state to implement bilingual education in grades pre-kindergarten through 12. (In addition to the Title VII elementary school program funded initially in 1971-72, the town received a grant of $234,772 in 1975 to fund the first secondary bilingual program in the state.)

During the 1975-76 school year, 1,507 students participated at the program schools: School A, pre-kindergarten and kindergarten; School B, grades 1 through 3; School C, grades 4 and 5; and School D, grades 6 and 7.

In 1973-74, School B was transformed into an open classroom school by the remodeling of the open patios and the installation of air-conditioning. School C was officially opened January 19, 1975. It is departmentalized with open classrooms made up of the different academic areas such as Science, Mathematics, Language Arts, Social Studies, Art, and Music. School C houses approximately 465 fourth- and fifth-grade students, while the enrollment at School B slightly exceeds 600. School D, which includes sixth- and seventh-grade students is an old structure which contrasts sharply with the more modern buildings. However, this building will eventually be closed (1976-77), and students in these grade levels will attend the former high school. The high school students (grades 9 through 12) will set up quarters in a new, open-space structure during the 1976-77 school year.

Goals and/or Objectives

In February 1, 1973, the school board met and accepted recommendations that established a maintenance program and accepted Spanish and English on an equal basis as the official language of the District. The major goal of the project is to graduate the student from high school with complete command of the primary language (for the majority, Spanish) and English as a secondary language. The maintenance approach allows the student to first learn the basic concepts in his/her own language with later transfer to the second language after proficiency has been reached. Eventually, instruction in both languages is given equal attention. The elementary program works with the concept of the open classroom in all grade levels. Individualized instruction is used to give each student work at his/her ability level, and students are graded according to individual progress rather than on a competitive basis.

For the entire individualized instruction program, project staff monitors the implementation through weekly, and sometimes daily, observations and/or interviews with teachers. Furthermore, the staff development component provides support for developing those teaching competencies required for the effective implementation of an individualized program. Teachers and teacher aides participate in weekly inservice training during the first semester and biweekly inservice training during the second semester which are organized and supervised by a consultant or a project staff member.

During the 1975-76 school year, nineteen trainees, as well as sixteen other bilingual teacher aides, were enrolled in classes taken locally through the continuing education office of a nearby university. The classes lead to a bachelor's degree in Elementary Education and bilingual teacher certification. The nineteen trainees were provided with payment for books and tuition, and a stipend. The sixteen nontrainees were provided with payment for books and tuition, but no stipend.

Another major objective within the program is parent-school communication. Each teacher is required to make a minimum of one home visit for each hoemroom student during the academic year. These visits are recorded on the parent-school community involvement forms which are submitted monthly to the project evaluator. The advisory committee also meets monthly to review project goals and the instructional program, to assess progress, and to provide input for the project's continuation proposal. The selection of the eighteen Advisory Committee members involves the following procedure: (1) Teachers select four representatives; (2) teacher aides select four members; (3) teachers and aides at each campus select eight parents, and (4) the Student Council selects two students.

Project Staff

The project is supported by the entire teaching personnel at the four project schools. This consists of approximately forty-five classroom teachers who are all paid out of State Minimum Foundation Funds.

The project staff consists of twenty full-time teacher aides, eight full-time resource teachers, one full-time school/community liaison, two full-time clerk typists, one full-time evaluator aide, one full-time evaluator, and two full-time project directors (elementary and secondary levels). Of the 1975-75 project staff, the resource teachers and teacher aides were all bilingual and Hispanic. The majority of the resource teachers had been involved with the project for a minimum of four years, while the majority of teacher aides had participated for at least two years. The other project staff members were bilingual and Hispanic and had worked in the project for maximum of two years.

Support services have been offered by the state education agency during the 1975-76 school year. The local service center sponsored a ten-day workshop for sixteen teachers from the District. In addition, a consultant from the center gave weekly inservice training at two of the project schools.

The school district is supportive of the project. As has been mentioned previously, the educational philosophy of the project reflects that of the school district itself. Preservice and inservice workshops are sponsored jointly by project and district personnel. Of the five preservice workshops, four were devoted to bilingual/bicultural education. During the year, release time was given by the District for the weekly inservice workshops that were held during the first semester and the bimonthly workshops during the second. Of the sixteen teachers scheduled to participate in the service center workshops, two were supported by the District. Also, the last two days of the school year are set aside as inservice training for the purpose of allowing teachers sufficient time to finish last minute administrative details. Finally, during the year, special audiovisual materials, such as a large stock of videotapes, are at the disposal of all district personnel.

Besides the dissemination of information through the Advisory Council, the project has utilized various media sources to publicize the project. In addition to the more conventional forms-- newspaper, radio, newsletter--the project was spotlighted in a film produced by a federally funded program and shown on the local public service channel.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	9	9
Total number of questionnaires received	9	4
Highest earned college degree:		
No degree		3
Degree or diploma based on less than 4 years of work		1
B.A. or B.S.	8	
Teaching credential only		
M.A. or higher	1	
No response		
Type of state teaching credential held:		
Non-credentialed		3
Temporary, provisional, partial-fulfillment, or emergency	4	
Regular credential	1	
Bilingual-bicultural teaching credential	4	1
No response		
Years of full-time teaching experience:		
Less than 1 year		
1 year	4	
2 years	3	2
3 years	1	1
4 years		1
5-9 years		
10-19 years	1	
20-29 years		
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	1	1
1 year	5	2
2 years	2	1
3 years		
4 years		
5 years	1	
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		1
6-15 quarter units (4-10 semester hours)	3	2
16-30 quarter units (11-20 semester hours)	3	
More than 30 quarter units (more than 20 semester hrs.)		
No college training in bilingual-bicultural	3	1
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days	5	3
15-30 days	3	
More than 30 days		
None	1	
No response		1

Sources of Project Funding

The following funds were specifically designated for and admininsterd by the bilingual project:

Title VII	$351,000	
Other Federal and State	463,218	
Other (Local bilingual)	160,600	
TOTAL	$623,818	
• Per pupil		$646.86

In addition to the above, the following funds were disignated for bilingual project schools:

School B		
Federal and State*	$110,731.51	
Other	-0-	
TOTAL	$110,731.51	
• Per pupil		$173.83
• Total per pupil additional funds for bilingual project participants		$820.69

School C		
Federal and State*	$ 85,565.25	
Other	-0-	
TOTAL	$ 85,565.25	
• Per pupil		$184.01
• Total per pupil additional funds for bilingual project participants		$830.87

*This figure represents funds from Title I and from the Title I Migrant Program. The District also receives funds from the Urban-Rural Program and the Career Opportunities Program (both federal), but these amounts were not available from district sources.

School D

Federal and State*	$145,964.26
Other	-0-
TOTAL	$145,964.26

Per pupil	$278.03
Total per pupil additional funds for bilingual project participants	$924.89

*This figure represents funds from Title I and from Title I Migrant Program. The district also received funds from the Urban-Rural Program and the Career Opportunities Program (both federal), but these amounts were not available from district sources.

CLASSROOM INFORMATION

Major Features of Classrooms Observed

- Spanish and English Reading. Individualized instruction in Spanish and English Reading is being achieved through the implementation of the Guszak Reading management system. It is an instructional approach which incorporates the following tasks: (1) diagnosis for the placement of the student at the appropriate level; (2) prescription through the contracting of work assignments at the student's independent level; and (3) evaluation of the student's progress and reassignment according to the results.
- Mathematics. In the area of Mathematics, the program has been developed for small group instruction by local personnel and is referred to as the Massignani Math Scope and Sequence Program. The tasks include (1) the development of student activities which correlate with the designated program (2) the assignment of activitees appropriate for the student's level of performance and interests; (3) the presentation of concepts in the dominant language with review in the second language; (4) the assignment of activities to be performed

independently and under teacher guidance; and (5) the evaluation of the student's progress with reassignment if necessary.

- Science. The Science program has also been developed for small group instruction. Essentially, the individualized program integrates several aspects as described within the Mathematics component (above), namely points 2, 3, and 4. In addition, it emphasized the following: (1) the preparation of activities related to the discovery process of science; (2) the assignment of students to groups for problem solving; and (3) the assignment of students to groups for the application of previously learned concepts.

- Social Studies. The individualized program for Social Studies also prescribes an educational approach which is geared to the interests and ability levels of the students. A preview-review method, as described previously, is utilized for the instruction of a curriculum which integrates the student's culture and heritage. The integration of the student's culture is herein defined as the inclusion in the curriculum of activities and experiences related to the child's home and community life.

Impact Study Samples

Nine classes were randomly selected for testing from grades 2 through 6 at the three target schools: School B, School C, and School D. Since all the schools function on a departmentalized system, preliminary information was gathered on the number of teachers assigned to the basic subject areas and the number of classes taught by each teacher during the day. English Language Arts, Spanish Language Arts, and Mathematics comprise the core instructional program which would be the object of the Impact Study's testing, observation and analysis.

At School B (second and third grades), the building plan is open-classroom with the departmentalized format. Three teachers were assigned to each subject area with a mixed grouping of second- and third-graders for each class. One teacher was randomly selected from each subject area, and then a random selection was made of the particular time period for all subjects. For example, the Friday sixth-period class was tested for each subject area.

At School C a similar situation was observed. Here, Tuesday first-period classes were randomly chosen for the three subject areas.

At School D there was a departmentalized format but no open classrooms. Also, there was only one teacher assigned to each of the subject areas of concern for the entire sixth-grade class. Therefore, a random selection was made for a time period. In this case, Wednesday first-period classes were chosen.

For the intensive study, or on-site visits, five classes were randomly selected. One class was chosen from each of the following combined and noncombined grade levels: second and third, fourth and fifth, and fifth. Two classes were sampled at the sixth-grade level.

Instructional Strategies for Combined Grades 2 and 3

English Language Instruction for Native-English and Native-Spanish Speakers

When on-site interviews were held with project teachers in March, 1976, several changes had occurred with the target group. For example, the English Language Arts teacher had instructed the second- and third-grade group through February. Then, eleven third-grade students were transferred to another English Language Arts classroom. The site visitor was unable to observe this group of students, and the class that was observed consisted only of twenty-three second-grade students.

The English Language Arts teacher has implemented an individualized program. The initial placement of students at their instructional level was completed with the use of the Informal Reading Instrument. Although the program was individualized by a contract system, the teacher did group students when the need arose. Specifically, she grouped students if they were performing at the same academic level or if they required additional instruction on a specific skill. The teacher worked with as many as eight or ten groups, changing the composition of each one frequently. Of the twenty-three students in the class, eighteen were designated bilingual. Instruction was only in English; however, she did allow the students to speak Spanish.

During the English Language Arts period students worked independently on contract assignments which included reading, creative writing, comprehension, handwriting, punctuation, capitalization, and alphabetization. Either the teacher or teacher aide checked the student's contract. This depended on the student's performance level. For example, those students on pre-primer level were checked daily, primer level four times a week; first-grade level, three times a week; second-grade level, twice a week; and third-grade up, once a week.

English Language Arts was taught five days a week. Each student received a minimum of a half-hour of instruction during the week and worked independently for three hours on contract assignments. In addition, one hour a week was devoted to an oral component consisting of skits, storytelling, choral reading, and/or sharing with the entire class. Students participated in groups formed for oral reading and/or skill development during a half-hour block each week. Other than those instruments already mentioned, there were no additional forms used for evaluation.

The teacher did utilize a great variety of teaching aids for enhancing the instructional program. Besides the Economy Company series for a basic textbook, the teacher made or bought exercise sheets, charts, educational games, and flash cards. She also brought into the classroom a wide variety of audiovisual materials such as records, television videotapes, filmstrips, films, and an overhead projector. Library books were plentiful in the classroom, as were art and craft supplies for enlivening work assignment.

Although the teacher met only formally with the parents of three students, informally, or outside the school environment, she spoke with more than half of the parents.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

Thirty-one students were tested in the third-period Spanish Language Arts class. Four groups were formed after initial placement was completed with the Informal Reading Instrument. Two groups were considered slow and each consisted of nine members. An average group listed eight students with a high group comprised of six students. All students, with the exception of two, who were bilingual were designated Spanish dominant. Spanish was the language of instruction and English was rarely used. Both teacher and teacher aide exchanged groups often.

Each group was given twenty minutes of instruction each week in the following content areas: capitalization, punctuation, spelling, grammar, creative writing, oral reading, phonics, and reading comprehension. Three hours were devoted weekly to completing contract assignments in these areas. In addition, another twenty minutes were spent by each group in oral work: plays, skits, storytelling, and sharing. Groups were assessed monthly with some students moving into different groups according to ability reassessment by the teacher.

Besides the reviewing of contract assignments on a weekly basis, the teacher also tested the student weekly. These results were recorded and were eventually reported to the student's parents during parent conferences. The Spanish Language Arts teacher also had at her disposal a variety of instructional aids. The Santillana series and the Laidlaw series for grades 2 and 3 were used as basic textbooks and were supplemented by exercise sheets, educational games, flash cards, and library books. Audiovisual materials such as tapes, records, videotapes, filmstrips, and 16mm films were used frequently for enriching most activities.

Mathematics Instruction

This component was taught by a Mathematics teacher. Grouping was determined by the results of a diagnostic test which assesed the student's mastery level of skills. There were thirty-four students assigned to four groups. The groups remained stable after the first month of the school year. However, changes were made depending on the student's need and ability.

Two groups, one of eight students and one of eleven, were tagged "fast." The average group consisted of seven students, and the slowest group (predominantly second-graders) had seven members. The teacher and teacher aide rotated groups halfway through the period. Basically, the responsibility of the aide was to review the lesson which had been introduced by the teacher. Therefore, the other two groups worked independently. One group was assigned seat work, and the other was allowed to choose from a variety of educational games to expand certain skills. Students were allowed to move and sit with members of the other groups; however, they were held responsible for the work that was to be accomplished at their assigned station.

A total of 2 1/2 hours of direct instruction was given to each group every week. The remaining 2 1/2 hours were spent in independent activity. All students were designated as bilingual students with instruction given in both languages.

Using both new math and a more traditional approach, the teacher covered the following topics during the school year: addition, subtraction, multiplication, division, fractions, and measurement of time and liquid. In addition to the diagnostic test which was given twice a year in both languages, the teacher also gave a test weekly and reviewed the student's work every six weeks prior to the grade reporting period, and the parent conferences. These forms of evaluation assessed achievement and also provided the teacher with guidelines on what to revise in the curriculum and/or instructional methods.

The teacher used a locally developed curriculum guide for Mathematics referred to as the Math Scope and Sequence and a number of materials as resources for lesson plans. There was no one textbook assigned to students. A number of supplementary materials such as exercise sheets, educational games, art and craft supplies, and the overhead projector were used.

Cultural Component

This subject area, as well as Science, was taught by a differnet teacher who was not interviewed or observed.

Instructional Strategies for Combined Grades 4 and 5

Two fourth and fifth grade classes were chosen for the intensive study at School C. One group (thirty-two fourth/fifth-grade students) had the following sequence of core classes: English Language Arts (first period), Mathematics (second period), and Spanish Language Arts (fifth period). The second group (sixteen fifth-grade students) had the following classes: Mathematics (first period), English Language Arts (second period), and Spanish Language Arts (fourth period).

With the exception of English Language Arts, all students were taught by the same Mathematics and Spanish Language Arts teachers. Therefore, in the descriptions that follow for each instructional component, both groups (Groups 1 and 2) will be presented.

English Language Instruction for Native-English and Native-Spanish Speakers

There were three English Language Arts teachers and three teacher aides for this component. An individualized program, consisting of a contract system, had been implemented for both groups. Placement of students at their appropriate instructional level occurred at the beginning of the school year with the use of the Reading Inventory Instrument. The students in Group 1 were grouped for instruction by the three teachers more for management purposes since this facilitated the daily task of checking student contracts. Some grouping did occur for instruction when several students required assistance on a particular skill or with oral reading sessions. For example, students who were at reading readiness and pre-primer level were grouped for oral reading five times during the week; those at the primer level, four times each week; those at first- and second-grade levels, three times; those at third-grade, two times; and those students at fourth- through seventh-grade level, once a week. The groups were rotated at the beginning of each week among the three teachers. Twenty-one of the thirty-two students in the class were designated Spanish-dominant and the others balanced bilingual.

Approximately 1 1/4 hours were devoted to the direct instruction of students in each group, with 2 1/3 hours spent in independent contract activity. Contract assignments included capitalization, punctuation, spelling, grammar, creative writing, and handwriting. Group work included oarl and silent reading, phonics, reading comprehension, and library assignments. There was also an oral language component--plays, skits, and storytelling sessions--for one hour each week. In addition to the three English Language Arts teachers, there was a remedial reading specialist who worked with five or six students for 1 3/4 hours each week. This resource person had just begun this instruction.

For Group 2, which was composed of fewer students, was taught by only one of the English Language Arts teachers with the assistance of a teacher aide. This English Language Arts teacher had only recently begun her employment with the school district (January). Although the group had been following an individualized instructional program, the teacher expressed some reservations about her ability to efficiently handle such a plan. She did receive additional assistance from the remedial reading specialist who worked with a few students for 2 1/2 hours each week. Besides individualizing instruction, she also grouped six students at a time for ten minutes of instruction in oral reading and/or skill development. The teacher aide was assigned to work with the top eight students; however, she did work with other students if time permitted.

Contracts were to be completed by the end of the week. However, the majority of students finished in two weeks. These assignments covered the following topics: capitalization, punctuation, spelling, grammar, creative writing, reading, phonics, comprehension, and library work. This was usually completed during the 2 2/3 hours which were spent each week in independent activity. Approximately one hour of direct instruction was provided for each student each week. In addition, individual students were pulled together for work on poetry, storytelling, and sharing sessions for at least an hour each week.

Evaluation for Group 1 was based on the daily and weekly assessment of students' progress on contracts. Finally, a cumulative six-week assignment was completed for reports to parents at scheduled conferences. These evealuations diagnosed the students' progress and helped the teacher determine which curricular materials and instructional techniques would facilitate learning for the student. Evaluation measures were the same for Group 2.

The Group 1 class used the Barnall Loft series for skill development, SRA books, the Houghton-Mifflin, and Scott Foresman Reading Series, and a supplementary reading textbook--Harper and Row Series. The following instructional aids were also used: exercise sheets, educational games, flash cards, and library books and audiovisual material that included tapes, records, television, videotapes, films, and filmstrips.

Group 2 used the Houghton-Mifflin series (grades 3 through 5) and the Harper and Row at comparable grade levels as well as workbooks, exercise sheets, charts, educational games, flash cards, and library books. The audiovisual materials were used for this group.

For the entire English Language Arts department, English was the sole language of instruction. They allowed the use of Spanish only when absolutely necessary. However, students did speak Spanish when communicating with each other.

Spanish Language Instruction for Native-English and Native-Spanish Speakers

There were three teachers assigned to the Spanish Language Arts department. Students were assigned arbitrarily to each teacher since this was done for no other reason than for managing the individualized program more efficiently. However, prior to December, the groups had been established according to ability level. But this practice was terminated after December. There were mixed ability groups for each teacher responsible for the instruction of Spanish Language Arts.

Group 1 and 2 students were dispersed at each class period among the three teachers. Approximately sixty to seventy students from other classes attended this instructional period. Individualized instruction had been established with a contract system although grouping usually occurred. One teacher uses 1/2 hour a day (or 2 1/2 hours) weekly to work with those students performing below grade level. The other two teachers pulled students together for oral reading and skill development. They were assisted by three teacher aides. At the beginning of each week, they rotated groups; therefore students were exposed to the teaching competencies of all three teachers. The contract assignments were in the following content areas: capitalization, punctuation, spelling, grammar, creative writing, and handwriting. For one teacher, approximately 1/2 hour of instruction was given to students every week in these areas while the remaining 3/4 hours were spent in independent activity (supervised by the teacher aide). For the other two teachers, the distribution of time was somewhat different. Students were instructed for forty-five minutes with independent work taking 1 2/3 hours each week. The Reading component included oral and silent reading, phonics, reading comprehension, and library tasks. All teachers devoted 1/2 hour of direct instruction. However, one teacher allowed slightly more time for independent work activity--1 4/5 hours per week--while the other teachers only assigned 1 2/3 hours a week. The oral language component would be incorporated towards the end of the school year.

The evaluation of students' work was carried out primarily by a weekly assessment of the students contracts. In addition, there were periodic checks on oral reading and reading comprehension skills in Spanish. Besides parent conferences, these teachers also held brief conferences with students individually. The weekly assessment of the student's contracts guided the teachers in revising curriculum and/or instructional techniques.

For both groups, the Senda series (grades 2 through 6) Libro de Lectura, the Laidlaw series, and the Santillana series were utilized as instructional materials. Aids included exercise sheets, educational games, flash cards, tapes, records, videotapes, filmstrips, 16mm films and library books. Instruction was in Spanish only.

Mathematics Instruction

Three teachers and three teacher aides were responsible for the Mathematics component of the instructional program. Each instructor taught one concept: (1) opposites, (2) reciprocals, and (3) variables. All concepts were taught to all the students by the end of the month. Groups were rotated every week. During Group 1's time period, the three groups consisted of thirty, thirty-three, and thirty-six students respectively. Group 1 was basically intact and comprises one of the groups. In Group 2's time period, the three groups numbered sixteen, twenty-five, and twenty-two respectively. Group 2 also was kept intact. All students, in both time slots, were designated bilingual. Each group had students at various ability levels. Instruction was given in both languages. The content areas which were covered during the 1975-76 school year for both groups included addition, subtraction, multiplication, division, and measurement of time. (These areas were taught by a combined traditional and new math approach.) Each teacher devoted about 7 1/2 hours a week to group instruction, and about 1 1/4 hours a week were spent working with a set of problems. The remaining time during the week was spent in independent work activity.

Both groups also had a similar plan for evaluation. Two teachers informally assessed the students' work on a daily basis and tested the students weekly or biweekly. The District also required the pretest/posttest results on a locally developed instrument which measures skills taught through the adopted Math Scope and Sequence Program.

The curriculum materials which were impelmented with both groups included Exploring Elementary Mathematics, Books 4 and 5 (Holt, Rinehart, and Winston, Inc.), Meeting Mathematics (American Book Co.), IPI Mathematics (Meredith Corp.), and material developed by the Mathematics supervisor for the District. In addition, a few teaching aids were incorporated into the instructional program: workbooks, flash cards, television videotapes, and an overhead projector.

Cultural Component

This subject area was taught by a different teacher who was not interviewed or observed.

Instructional Strategies for Grade 6

At School D, two first-period sections were selected for the intensive study. Group 1 had the following schedule; Mathematics (first period), Spanish Language Arts (third period), and English Language Arts (fourth period); Group 2, Spanish Language Arts (first period), Mathematics (fourth period), and English Language Arts (sixth period).

Since there was only one teacher assigned to each subject area, students from both groups received instruction from the same group of teachers. There was also a teacher aide in each of these classrooms. The description that follows each instructional component will involve both groups (Group 1 of thirty-one students, Group 2 of thirty-three students).

English Language Instruction for Native-English and Native-Spanish Speakers

The Informal Reading Test was used to place students at their appropriate instructional level. While an individualized program, characterized by the contract system, had been partially established, the predominant instructional pattern was towards small-group instruction. In each of the group's time periods, there were basically three groups established. During the instructional period for Group 1, these groups consisted of nine, eleven and eleven students each. Essentially, Group 2 followed an identical pattern except that the groups consisted of the following: top group, seven students; average group, eleven students, and low group, eight students. The fewer number of students in Group 2 is accounted for by the transfer of some students to the remedial reading specialist who worked with students for 1 3/4 hours each week. All students were considered bilingual.

The average and low groups were taught by the subject area teacher, while the top group was instructed by the teacher aide. Rarely did the teacher and teacher aide exchange groups. The teacher had students functioning at pre-primer through sixth grade level while the teacher aide had students performing at seventh- through eleventh-grade levels. The teacher allotted 1 1/3 hours a week to direct instruction for each in the following content areas: capitalization, punctuation, spelling, grammar, and creative writing. Independent work on contracts for these areas was completed during the two hours fifty minutes scheduled each week. The teacher aide spent 1 1/2 hour in direct instruction with three hours on independent work during the week. The teacher aide also incorporated a Reading component (silent reading, reading comprehension, and library work). There were no oral language acitivities such as storytelling, plays, skits or choral reading. Instruction was in English.

Evaluation of students' work was accomplished by serveral methods: (1) diagnostic testing twice a year; (2) daily assessment of students' assignments, and (3) weekly tests which review material.

There was no particular textbook assigned to teither Groups 1 or 2 The teacher pulled from a wide variety of resources including a curriculum guide which had been developed by the District for English Language Arts. Exercise sheets, educational games and library books were also utilized.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

The reading compentence of each student was assessed by use of a diagnostic reading test. Eseentially there were two groups formed within each of the two disignateddtime periods. In Group 1, the high group consists of twenty-five bilingual students with the low group composed of five bilingual students. The high group was performing at grade level and above while the low group was below grade level. The teacher worked primarily with the larger group and the teacher aide with the smaller group. The teacher reevaluated the groups every six weeks. He did move some students into the larger group. During a three week block of time, capitalization and punctuation skills were taught daily. Later, other skills in spelling, grammar, and creative writing were taught. Approximately 2 1/2 hours (for each group) were allotted each week for the instruction of these skills as well as oral/silent reading, phonics, reading comprehension and library assignments. Two hours were assigned for independent work per group. In addition, the entire class participated in an oral language component (plays, poetry, skits, storytelling and sharing) during a two week period (nine hours).

Group 2 was also grouped according to the preceding criteria . Time allocations for content areas in Spanish Language Arts were identical. The numbber of students and their language dominance varied. The instructor worked with twenty-seven students (twenty-five bilingual, two Spanish-domminant) and the teacher aide with six students (five bilingual, one Spanish-dominant). The Senda series (Santillana) was used as the basic textbook. Other instructional aids were exercise sheets, flash cards, records, filmstrips, library books, and an overhead projector. A language dominance test was used as a pre/post measure for the evaluation of students. The Spanish Language Arts teacher reviewed the work completed by students in both groups on a daily basis. A test covering materials taught during a six week period was administered for grade reporting purposes.

Mathematics Instruction

A diagnostic test was utilized by the teacher for the placement of students in groups. Two groups, one taught by the teacher and the other by the teacher aide were established. Students changed groups depending on their academic progress. This assessment was made every other month. Of the Group 1 students, eighteen students, considered the advanced and average students, were taught by the teacher aide. Nine students, who were designated slow, were taught by the teacher. All students were bilingual.

In Group 2, there were twenty-five bilingual students who were taught by the teacher aide, while ten students were given instruction by the teacher. Instruction was in both languages. The content areas covered by both groups included addition, subtraction, multiplication, and division. The advanced and average students also were taught fractions, percentages, and some algebra.

Both the traditional approach and new math were used. Approximately 3 1/4 hours were spent each week in the instruction of both groups; 1 1/2 hours were devoted to independent work activity.

Besides the diagnostic testing, students were evaluated every two weeks. The teacher's assessment of students' work and test results were used for grading and for guiding the teacher's future selection of curriculum materials and/or teaching strategies. Every six weeks another test was administered, and the results determined the final assessment that was reported to the parents.

The district's program, Math Scope and Sequence and Exploring Elementary Mathematics (Holt, Rinehart, Winston) were the major textbooks. Other instructional materials included workbooks, exercise sheets, educational games, flash cards, tapes, records, videotapes, filmstrips, overhead projector, films, and arts and crafts supplies.

Cultural Component

Both this subject area and Science were taught by a different teacher who was not interviewed or observed.

Instructional Strategies for Combined Grades 4 and 5

Two fourth and fifth grade classes were chosen for the intensive study at School C. One class (thirty-two fourth-fifth-grade students) had the following sequence of "core" classes: English Language Arts (first period), Mathematics (second period), and Spanish Language Arts (fifth period). The second class (sixteen fifth-grade students) had the following classes: Mathematics (first period), English Language Arts (second period), and Spanish Language Arts (fourth period).

With the exception of English Language Arts, all students were taught by the same Mathematics and Spanish Language Arts teachers. Therefore, in the descriptions that follow for each instructional component, both classes (Groups 1 and 2) will be presented.

English Language Instruction for Native-English and Native-Spanish Speakers

There are three English Language Arts teachers and three teacher aides for this component. An individualized program, consisting of a contract system, has been implemented for both groups. Placement of students on their appropriate instructional level occurred at the beginning of the school year with the use of the Reading Inventory Instrument. The students in Group 1 are grouped for instruction by the three teachers more for management purposes since this facilitates the daily task of checking student contracts. Some grouping does occur for instruction when several students require assistance on a particualr skill or require oral reading sessions. For example, students who are on Reading Readiness and pre-primer level were grouped for oral reading five times during the week; those at the primer level--four times each week; first- and second-grades--three times; third grade--two times; and those students in fourth- through seventh-grade levels--once a week. The groups are rotated at the beginning of each week among the three teachers. Of the thirty-two students who comprised the class, twenty-one were designated Spanish-dominant and the others bilingual.

Approximately 1 1/4 hours are devoted to the direct instruction of students in each group, with 2 1/3 hours spent in independent contract activity. Contract assingments include: capitalization, punctuation, spelling, grammar, creative writing and handwriting. Group work may include oral and silent reading, phonics, reading comprehension, and library assignments. There is also an oral language component one hour a week including activities such as plays, skits, and storytelling. In addition to the three English Language Arts teachers, there is a remedial reading specialist who works with five to six students for one hour forty minutes each week. This resource person had recently begun this instruction.

For Group 2, since the class is composed of fewer students, it is taught by only one of the English Language Arts teachers with the assistance of a teacher aide. It should be pointed out that, at the time of visitation, this English Language Arts teacher had only recently begun her employment with the school district (January). Although the group had been following an individualized instructional program, the teacher expressed some reservations about her ability to handle efficiently such a plan. She does receive additional assistance from the remedial reading specialist who works with a few sutdents for 2 1/2 hours each week. Besides individualizing instruction, she also groups six students at a time for ten minutes of instruction. This may occur for oral reading and/or reading skills development. The teacher aide was assigned to work with the top eight students, however, she does work with other students if time permits.

Contracts are to be completed by the end of the week. However, the majority of students finish in two weeks. These assignments cover capitalization, punctuation, spelling, grammar, creative writing, reading, phonics, comprehension and library work. Contracts are usually completed during the 2 2/3 hours which are spent each week in independent activity. Approximately one hour of individual instruction is provided each week. In addition, the students are brought together for poetry, storytelling and sharing sessions at least one hour each week.

Evaluation for Groups 1 and 2 is based on the daily and weekly assessment of students' progress on contracts. Finally, a cumulative six-week assignment is completed for reports to parents at scheduled conferences. These evaluations diagnose the students' progress and help the teacher determine which curricular materials and instructional techniques will facilitate learning for the student.

In the Group 1 class, the English Language Arts teacher utilizes the Barnall Loft Series for Skill Development, SRA, the Houghton-Mifflin, Scott Foresman Reading Series and supplementary reading textbooks from the Harper and Row Series. In addition, she uses exercise sheets, educational games, flash cards, library books, tapes, records, television, video tapes, films and filmstrips.

Group 2 uses the Houghton-Mifflin Series (Grades 3 through 5) and the supplementary series--Harper and Row at comparable grade levels. They also receive workbooks, exercise sheets, charts, educational games, flash cards, and library books. This English Language Arts teacher had not brought any audio-visual material into the classroom for instructional purposes.

For the entire English Language Arts department, English is the sole medium of instruction. They allow the use of Spanish only when absolutely necessary. However, students do speak Spanish when communicating with each other.

Spanish Language Instruction for Native-English and Native-Spanish Speakers

There are three teachers assigned to the Spanish Language Arts department. Students are assigned arbitrarily to a teacher for efficient management of the individualized program. (Prior to December, however, the groups were established according to ability level.)

Group 1 and 2 students are dispersed at each class period among the three teachers. Students from other classes also attend this instructional period (approximately sixty to seventy students in total).

Individualized instruction has been established with a contract system, as well as grouping for a portion of the allotted time. One teacher uses 1/2 hour per day to work with those students performing below grade level. The other two teachers, assisted by three teacher aides, group students for oral reading and skill development. At the beginning of each week, they rotate groups. The contract assignments are in capitalization, punctuation, spelling, grammar, creative writing, and handwriting. For one teacher, approximately 1/2 hour of instruction is given to students every week in these areas while the remaining time is spent in independent activity (supervised by the teacher aide). For the other two teachers, the distribution of time was somewhat different. The direct instruction of students occurred for forty-five minutes with independent work taking 1 2/3 hours each week.

The Reading component included oral and silent reading, phonics, reading comprehension, and library tasks. All teachers devoted 1/2 hour to direct instruction.

At the time of visitation, no attention had yet been given to the oral language component. However, the three teachers did say they would be incorporating that aspect of the instructional program towards the end of the school year.

Evaluation of the students' work is made primarily through weekly assessment of the student's contracts which guides the teachers in revising curriculum and/or instructional techniques. In addition, there are periodic checks on oral reading and reading comprehension skills in Spanish. Besides parent conferences, these teachers also hold brief conferences with individual students.

For both groups, the Senda Series (Grades 2-6) Libro de Lectura, the Laidlaw Series, and the Santillana Series were utilized as instructional materials. Other aids included exercise sheets, educational games, flash cards, tapes, records, videotapes, filmstrips, 16mm films and library books. Instruction was completely in Spanish.

Mathematics Instruction

Three teachers and three teacher aides are responsible for the Mathematics component of the instructional program. Each instructor teaches one aspect of the following mathematical concepts: opposites, reciprocal, and variables. All aspects, as related to a particular concept, are taught to all the students by the end of the month.

Groups are rotated every week. During Group 1's time period, the class was divided into groups of thirty, thirty-three and thirty-six students. The Group 2 class was divided into three groups of sixteen, twenty-five and twenty-two students. All students, in both time slots, were bilingual.

Each group had students at various ability levels. Instruction was given in both languages. The content areas which were covered during the 1975-76 school year for both groups include: addition, substraction, multiplication, division, and measurement of time. (These areas are taught by a combination of traditional and new math approach.) Each teacher, in working with each group, devotes 7 1/4 hrs per week to direct instruction. 1 1/4 hours per week are spent working with a set of problems under the teacher's direction. The remaining hour each week is spent in independent work.

Both groups also have a similar plan for evaluation. Two teachers informally assess the students' work on a daily basis. Two teachers test the students weekly or biweekly. The district also requires the prepost results on a locally developed instrument which measures skills taught through the adopted Math Scope and Sequence Program.

The curriculum materials which were implemented with both groups include: Exploring Elementary Mathematics, Books 4 & 5 (Holt, Rinehard, & Winston, Inc.), Meeting Mathematics (American Book Co.), IPI Mathematics (Meredith Corp.) and materials developed by the Math Supervisor for the District. In addition, workbooks, flash cards, television videotapes, and an overhead projector are incorporated into the instructional program.

Cultural Component

This subject area, as with Science, was taught by a different teacher who was not interviewed or observed.

Instructional Strategies for Grade 6

At School D two first period sections were selected for the intensive study. Group 1 had Mathematics during first period, Spanish Language Arts third period, and English Language Arts fourth period, while Group 2 had Spanish Language Arts first period, Mathematics fourth period, and English Language Arts sixth period.

Since there was only one teacher assigned to each subject area, students from both groups received instruction from the same group of teachers. There was also a teacher aide in each of these classrooms. Hence, the following descriptions of the instructional components will involve both groups (Group 1 of thirty-one students and Group 2 of thirty-three students).

English Language Instruction for Native-English and Native-Spanish Speakers

The Informal Reading Test was used to place students at their appropriate instructional level. While an individualized program characterized by a contract system has been partially established, the predominant instructional pattern was small group instruction. The entire instructional program was conducted in English. For Group 1's and Group 2's time period there were basically three groups established. During the instructional period for Group 1, these groups consisted of nine students in the top-, eleven in the middle-, and eleven in the low-ability group. For Group 2, there were seven, seventy-seven and eight students respectively. All students were considered bilingual. The medium and low groups (each with eleven students) were taught by the teacher, while the top group was instructed by the teacher aide. Rarely did teacher and teacher aide exchange ability groups. The teacher had students functioning on the pre-primer through sixth-grade while the teacher aide had students performing on seventh- through eleventh-grade levels. The teacher allotted 1 1/3 hours per week to direct instruction for each ability group in capitalization, puctuation, spelling and grammar, as well as creative writing which was treated during the last six weeks of the school year. Independent work on contracts for these areas was completed during the three hours scheduled each week. The teacher aide spent 1 1/2 hours weekly in direct instruction, incorporating the Reading component (silent reading, reading comprehension, and library work); and three hours ten minutes on independent work during the week.

No attention had been given to oral activities such as storytelling, plays, skits or choral reading. There was a remedial reading specialist who worked with eight students for one hour fifty minutes each week.

Evaluation of students' work was accomplished by several methods: (1) diagnostic testing twice a year; (2) daily assessment of students' assignments, and (3) weekly tests which review material.

There is no particular textbook assigned to either Group 1 or 2. The teacher from a wide variety of resources including a curriculum guide which was developed by the District for English Language Arts. Exercise sheets, educational games, and library books were also utilized.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

The reading competence of each student was assessed by use of a diagnostic reading test. Essentially there were two ability groups formed within each of the Groups. In Group 1, the high-ability group consisted of twenty-five and the low-ability group of five bilingual students. The high-ability group was performing at grade level or above, while the low-ability group was below grade level. The teacher worked primarily with the larger group and the teacher aide with the smaller. The teacher reevaluated the groups every six weeks. He had moved students into the larger group. During a three week block of time, capitalization and punctuation skills were taught daily. Later other skills in spelling, grammar and creative writing were covered.

Approximately 2 1/2 hours were allotted each week per group for the instruction of these skills as well as oral and silent reading, phonics, reading comprehension, and library assignments. Two hours were assigned for independent work per group. In addition, the entire class had participated in plays, poetry, skits, storytelling, and sharing during a two week period (nine hours).

Group 2 was also grouped according to the preceding criteria. Time allocations for content areas in Spanish Language Arts were identical. In Group 2, the teacher worked with twenty-seven students (twenty-five bilingual, two Spanish-dominant), and the teacher aide with six students (five bilingual, one Spanish-dominant). A language dominance test was used as a pre/post measure for the evaluation of students. The Spanish Language Arts teacher reviewed the work completed by students in both groups on a daily basis. A test covering the material taught during each six week period was administered for grade reporting. The Senda series (Santillana) is used as the basic text. Other instructional aids included exercise sheets, flash cards, records, filmstrips, library books and an overhead projector.

Mathematics Instruction

A diagnostic test is utilized by the teacher for the placement of students in groups. Two groups, one taught by the teacher, and the other by the teacher aide, had been established. Students might change groups depending on their academic progress. Such assessment was made every other month. Of the Group 1 students, eighteen, considered the advanced and average students, were taught by the teacher aide. Nine students, designated as slow, were taught by the teacher. All students were bilingual.

For Group 2, there were twenty-five bilingual students who were taught by the teacher aide while given additional instruction by the teacher. Instruction was in both languages.

The content areas covered by both groups included addition, subtraction, multiplication and division. The advanced and average students also were taught fractions, percentages, and some algebra.

Both a traditional approach and new math were taught. Approximately 3 1/4 hours were spent each week in the instruction of both groups. One and one-half hours were devoted to independent work activity.

Besides the diagnostic testing, students were evaluated every two weeks. The teacher's assessment of students' work and test restults were used for grade reports and to guide the teacher's future selection of curricular materials and/or teaching strategies. Every six weeks another test was administered and the results determined the final assessment reported to the parents.

The district's program, Math Scope and Sequence and Exploring Elementary Mathematics (Holt, Rinehard, Winston) were the major textbooks. Other instructional materials included workbooks, exercise sheets, educational games, flash cards, tapes, records, video-tapes, filmstrips, overhead projector, films, and arts and crafts supplies.

Cultural Component

This subject area, as well as science, were taught by a different teacher who was not interviewed or observed.

Parent and Community Involvement

In the combined second- and third-grade classroom, the students' Mathematics teacher, who was also their homeroom teacher, had met with the parents of six students. Some parents had served as volunteers during the school year.

For grades 4 and 5, there had been minimal parent participation for both Group 1 and 2. There was a trip planned for Group 1 in which five or six parents would be involved. It was also estimated by the first period teacher that ten to fifteen parents of students in Group 1 had conferred with the teacher on the students's progress. For Group 2, the first period teacher also noted a number of activities that would hopefully involve more parents. These were: (1) field trip to the planetarium, (2) Parents' Week, and (3) the Parent Involvement Meeting. Up to that date, however, the teacher had only met with three parents.

The information on the sixth grade was also gathered from all teachers who were interviewed for information on the extent of parent involvement at the school. For Group 1, the first period math teacher (also the homeroom teacher) stated that there had been eleven parent-teacher conferences and on more informal occasions he had met with seven parents. The Group 2 homeroom teacher (also the first period Spanish teacher) had also met with parents on a more informal basis. In addition to teaching Spanish Language Arts, he had also sponsored a Spanish Club. Student members had gone on a trip to a nearby city, had hosted a jamaica (bazaar) and a dance. He also stated that there were periodic PTA meetings which parents attended, and the current (during the site visit) Parent Visitation Week would find several parents at school confering with teachers. The Mathematics teacher for Group 2 reported that he had met with twelve parents and the English Language Arts teacher had met with seven parents.

PROJECT 4

PROJECT INFORMATION

Project Context and Target Population

Project 4 was first initiated in 1971 at the kindergarten level. By the 1975-76 school year, bilingual instruction was offered in kindergarten through grade 4 in five elementary schools. There are forty-two bilingual classes in the project which serves 1,062 students. Approximately 70% of the student population is of Hispanic ethnicity. The predominant segment is of Puerto Rican descent, and there are also students of Cuban, Dominican, and Mexican backgrounds. The white non-Hispanic and black students together form 30% of the project population.

The community in which this project is located is an industrialized city with a dominant middle class. It is multiethnic with a population composed mainly of Greeks, Hungarians, Italians, Puerto Ricans, Portuguese and American blacks.

The families whose children are attending the bilingual classes are of the lower middle class. Their annual incomes range from $4,000 to $6,000. Most parents are either semiskilled or unskilled laborers. The majority of these families live in mixed single-unit and multiple-unit dwellings. About 40% of the familites are bilingual (Spanish/English), 30% are Spanish monolingual, and 30% are English monolingual. The mobility rates vary within the District ranging from 12% at one school to from 50% to 60% at another.

Goals and/or Objectives

The major project goals and objectives are the following:

- To formulate a total data file of all environmental and non-academic influences on each student
- To teach culture through activities to broaden each student's cultural perspective

- To include parents in every phase of the program in order to achieve their maximum participation in the educational process of their children
- To assure that students from English- and Spanish-speaking environments will have a usable command of both languages
- To assure that students of comparable ability will progress through the school program without linguistic and cultural handicaps
- To assure that all participants will gain an appreciation for a multicultural society
- To include staff inservice training that meets the cultural needs of the students in bilingual classes

Project Staff

During the 1975-76 school year, project staff included a full-time Project Director, a curriculum and materials specialist, a school/community liaison, and a full-time secretary. The teaching staff included forty-two teachers, twenty-two of whom were bilingual English/Spanish speakers with the remainder being English monolingual. Nine paraprofessional aides were also funded through Title VII.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study		
Total number of questionnaires received	6	5
Highest earned college degree:		
No degree		2
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	4	1
Teaching credential only	1	1
M.A. or higher	1	
No response		1
Type of state teaching credential held:		
Non-credentialed		2
Temporary, provisional, partial-fulfillment, or emergency	5	1
Regular credential	1	1
Bilingual-bicultural teaching credential		
No response		1
Years of full-time teaching experience:		
Less than 1 year	1	1
1 year		
2 years	2	
3 years	2	
4 years		1
5-9 years		2
10-19 years	1	1
20-29 years		
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	1	1
1 year		
2 years	2	1
3 years	2	1
4 years		1
5 years	1	1
More than 5 years		
No response		

Amount of college training specifically devoted to bilingual-bicultural education:	Teachers	Aides
1-5 quarter units (1-3 semester hours)	1	
6-15 quarter units (4-10 semester hours)	2	
16-30 quarter units (11-20 semester hours)	2	1
More than 30 quarter units (more than 20 semester hrs.)		
No college training in bilingual-bicultural	1	4
No response		

Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:	Teachers	Aides
1 day or less		
2-15 days	1	1
15-30 days	2	1
More than 30 days	2	2
None	1	1
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$137,200	
Other Federal and State	78,000	
Other (Community Block Development Grant)	28,000	
TOTAL	$243,200	
• Per pupil		$229.00

In addition to the above, the following funds were designated for bilingual project schools:

School A

Federal and State	$102,332	
Other	-0-	
TOTAL	$102,332	
• Per pupil		$113.70
• Total per pupil additional funds for bilingual project participants		$342.70

School B

Federal and State	$63,873	
Other	-0-	
TOTAL	$63,873	
• Per pupil		$92.57
• Total per pupil additional funds for bilingual project participants		$321.57

School C

Federal and State	$86,930	
Other	-0-	
TOTAL	$86,930	
• Per pupil		$125.26
• Total per pupil additional funds for bilingual project participants		$354.26

The local district per pupil cost is $1,018 which does not include the supplementary federal and state funding listed above.

CLASSROOM INFORMATION

Major Features of Classrooms Observed

- Children are tracked according to language dominance.
- Within an English- or Spanish-dominant component, students are grouped according to ability.
- In all classes observed, an aide or student teacher assisted in instruction.
- In the cases in which a teacher was English dominant, she was paired with a bilingual aide or teacher.
- The local curriculum as prescribed by the District forms the basis for the content areas of Mathematics, Social Studies, and Science.
- Teachers have the responsibility of developing their own curricula for Art, Music, and drama within the guidelines of the local objectives.
- English as a Second Language instruction is given to Spanish-dominant students on a regular basis.
- Spanish as a Second Language instruction is not given because the project is a transitional one as mandated by the state.
- Instruction in all content areas is given in English, in Spanish, or in both, depending upon the language dominance of the students.

Impact Study Samples

Five of the classes which were tested by AIR were randomly selected for detailed observation. Two second-grade classes were observed in School A. Two third-grade classes were observed in School B, and a fourth-grade class was observed in School C.

Instructional Strategies for Grade 2

Major Features

- The Spanish component is taught by a teacher who is a Spanish-dominant bilingual and an aide who is an English-dominant bilingual.
- The English component is taught by an English monolingual and her aide who is a Spanish-dominant bilingual.
- Within both classes, instruction is given to ability-based groups, with some individualization based upon need.
- All students receive English instruction.
- English as a Second Language is usually taught in the homerooms, though some students are grouped with other classes.
- Slower Spanish-dominant students are learning oral English only but are learning how to read in Spanish.
- In the afternoons, students from both classes participate in an integration program in which they exchange homerooms with students from other classes to become familiar with other cultures.
- Homework is given in both classes.

English Language Instruction for Native-Spanish and Native-English Speakers

All students were given a test in English reading and subsequently were divided into different groups based on ability.

In the Spanish-dominant component, four groups of students are reading in English, and a fifth group (nine students) is studying core English with the aide. Group instruction is given thirty-five minutes each day with the remainder of the hour used for independent work. The classroom teacher instructs one group (five students), while the remaining students are instructed by three other classroom teachers. Students are studying in the Distar series which has a prescribed method of instruction based on a phonetic alphabet, modeling, sentence patterns, group reading, and individual reading. The students have exercise sheets which come with the series and are designed to expand their writing skills, spelling, and vocabulary. They also have exercise sheets to be completed at home.

The nine students studying core English, or English as a Second Language (ESL), meet with the aide thirty-five minutes each day. She is working on expanding their listening and speaking skills, developing their vocabulary, and improving their pronunciation. She uses visual aids including pictures and charts to make the lessons both interesting and relevant. The language of instruction is 90% English, and Spanish is used for explanation only.

In the English-dominant component, there are four ability-based groups also working with the Distar modules. The classroom teacher instructs all groups and uses the same method as described above.

Spanish Language Instruction for Native-Spanish Speakers

Spanish language instruction is given to the students in the Spanish component class each week. There are four ability groups reading the Santillana series. Instruction is given within the groups about twenty minutes each day. The classroom teacher works with the three top groups daily, and the aide works with the slow group three days a week. On the remaining two days, the classroom teacher works with the slow group.

Within the groups, the students study phonics, read orally, and work on reading comprehension. They do written work in the workbook which accompanies the series. The classroom teacher gives students written assignments on the board for independent seatwork. She also uses flash cards, Spanish games, and puzzles as supplementary teaching aids. In addition, she uses records and tapes in the class.

Mathematics Instruction

Mathematics instruction is given five hours a week in both classes. Although there are ability groupings, the students move along at their own pace with reinforcement given by the aides.

In the Spanish component, the language of instruction is Spanish only, and the textbook used is entitled, Matematica para la Educacion Primaria (Addison-Wesley).

In the English component, instruction is given only in English, and the textbook used is entitled Mathematics (Random House).

In both classes exercise sheets as well as commercially or locally produced flash cards are used. Students spend from thirty-five to forty-five minutes each day on their computations, and their answers are corrected individually or at times as a group by the teachers or aides.

Cultural Component

Social Studies forms part of the Board of Education curriculum. In the Spanish component it is taught twice a week for a total of two hours. It is bicultural in approach and the languages of instruction are Spanish and English. The students learn about history, famous people, holidays, and legends and learn songs. In the English component the students are instructed in Social Studies three times a week for a total of 1 1/2 hours. The language of instruction is English.

Instructional Strategies for Grade 3

Major Features

- Both third-grade classes are located in a high school across the street from School B. Because of the isolation from the main school, the teachers are quite autonomous.
- The teacher in the Spanish component is a balanced bilingual of Hispanic ethnicity. The majority of homeroom students are Spanish dominant, with the exception of three black students and one white non-Hispanic.
- The teacher of the English component is of Greek ethnicity and is bilingual in English and Greek. The majority of students in her homeroom are English-dominant Hispanics; there are some Spanish-dominant bilinguals and two black Americans who speak only English.
- Both teachers have been working together for two years. They have developed special materials for their students in math to meet individual needs.
- Attention is given to biculturalism, and the teachers often team-teach the cultural component in one of the classrooms.
- A teacher-trainee from a local university is an aide in both classes. She is working with small groups of students who need intensive ESL instruction.
- During observations which were made over a three-day period, students in both classes were extremely well behaved. This is due to the way in which teaching is organized in the two classes. Both teachers work with small groups for Reading and Mathematics. While they are thus involved, all other students have to complete board work in the area of Language Arts or portions of their individualized Mathematics pamphlets.

English Language Instruction for Native-English and Native-Spanish Speakers

English language instruction is given five hours weekly by the classroom teacher of the English component. There are five ability-based groups which are using different levels of the Distar modules.

The instructor spends about twenty minutes daily with each group explaining new vocabulary to them, having the students read aloud, and correcting their homework. In addition, students must complete assignments which are written on the blackboard.

As a class, the students also study grammar, punctuation, spelling, creative writing, and dictate a life experience story to the teacher. They also study poetry and listen to stories read to them by their teacher.

The students in the Spanish component are studying English as a Second Language (ESL) with the teacher in the English component and her aide. They receive about 3 3/4 hours of instruction per week. There are two reading groups (eleven students and fourteen students, respectively) which are reading the Distar series. The slow students work with the aide in phonics, in pronunciation, and vocabulary building. As a group, the students sing songs and see filmstrips and movies. The students also do written work based on assignments on the blackboard. The language of instruction is almost totally English, although the aide may sometimes use Spanish if the students need an explanation.

Spanish Language Instruction for Native-Spanish Speakers

Spanish reading is taught five hours each week. There are five ability-based groups. The classroom teacher teaches the three top groups and the lowest group. The aide works with the two lowest groups. Instruction is given to each group at least twenty minutes a day. Students read orally and answer comprehension questions. They also do written work in conjunction with their textbook which is in the Santillana series. The lowest group works on phonics only.

As a group, students study capitalization, punctuation, spelling, and grammar. They also do choral reading and poetry and listen to stories read to them by their teacher.

Mathematics

In both classes, Mathematics is taught five hours each week. Students are divided into ability-based groups and are taught in their dominant languages. In the Spanish-dominant component, the teacher has made each student a Mathematics pamphlet which he works on at his own pace. The pamphlets are corrected by either the teacheror the aide. In the English component students also use locally produced exercise sheets and work at their own speed. Individualized instruction is given when necessary.

Cultural Component

Social Studies is team taught by both teachers fifty minutes each week. The students learn ethnic dances from Hispanic countries, sing songs in Spanish and English, and study about Hispanic holidays, famous people, and geography. The teachers received a $1,500 reading grant to teach a bilingual/bicultural Social Studies class in 1975-76.

Instructional Strategies for Grade 4

Major Features

- The principal in School C works closely with all teachers, including the one who participated in this study.
- The classroom teacher is bilingual and is of Hispanic ethnicity.
- The full-time aide who instructs in this class is a Spanish-dominant bilingual from Cuba.
- Students in this class are grouped according to language dominance and by ability within the areas of English and Spanish Language Arts, Reading, and Mathematics.
- Both ESL and SSL are taught within the class. More time is spent on English as a Second Language instruction than on Spanish as a Second Language instruction.

- Both the teacher and aide use locally produced materials to supplement textbooks. Also many assignments are written on the blackboard to be completed during class.
- Mathematics is taught on an individualized basis, with some group instruction when new concepts are introduced.
- Social Studies is taught once a week, and some bicultural events are discussed throughout the year.

English Language Instruction for Native-English and Native-Spanish Speakers

English is taught five hours weekly by the classroom teacher and two other full-time teachers at different grade levels. There are five ability-based groups, four of which are below grade level. Two groups meet with different teachers, and two are instructed by the classroom teacher. They are reading at different levels in the Distar modules according to the method previously described. The fifth group is reading in the Open Highways series published by Scott Foresman. The students do not have workbooks and use locally produced exercise sheets for written work.

The teacher spends about twenty minutes each day with each reading group. The students read orally and answer reading comprehension questions. They spend about forty minutes each day on written work. As a class, group instruction is given on capitalization, spelling, new vocabulary, and creative writing. The students also study poetry and recount personal experiences.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

Spanish is taught about five hours each week by the paraprofessional aide. There are three reading groups which are ability based. The students are using the Santillana series readers and the accompanying workbooks. Each group meets for approximately twenty minutes each day. Within the group students read aloud and answer reading comprehension questions. They also go over their written work.

Eleven English-dominant students receive Spanish as a Second Language instruction one hour each week. They are working on vocabulary building, pronunciation, sentence patterns, and some conversation. The languages of instruction are Spanish and English. Written work is done on locally developed exercise sheets.

Mathematics Instruction

Mathematics is taught five hours weekly. Group instruction is given occasionally when the classroom teacher presents new material, but students spend most of their time working independently. Mathematics assignments are written on the board or given on locally produced exercise sheets. Students complete the exercise sheets and have them corrected individually. The aide usually works with ten Spanish-dominant students, and the classroom teacher works with the rest. Instruction is given in both Spanish and English.

Cultural Component

Social Studies is taught once a week for forty-five minutes. The classroom teacher follows the prescribed curriculum from the Board of Education. The students learn about history, holidays, famous people, art, and games that relate to both North American and Hispanic cultures.

Parent and Community Involvement

In the second-grade classes, parents meet with the teachers to discuss student performance twice yearly. In the English component, participation was 80%, and in the Spanish component, 62%.

In the third-grade classes, parental involvement was about 90% for parent/teacher conferences. In addition, fourteen parents came to school on Puerto Rican Discobery Day. Seven to ten parents have also participated in field trips in each class.

According to the fourth-grade teacher, parental involvement was high. Twenty-seven parents have visited the classroom twice this year for teacher conferences.

PROJECT 5

PROJECT INFORMATION

Project Context and Target Population

The community in which the project operates is located in a vast, highly industrialized urban area. The majority of the wage earners are semiskilled workers. Families served by the schools have an average gross annual income of $4,000 to $6,000.

Initially, the project was funded in 1972. All six schools were included with a total of twenty-five bilingual classrooms in kindergarten through grade 2 and grades 5 through 8. During the following two years, the project grew to include bilingual classrooms in all grade levels.

Presently the project operates in all six elementary schools in the District. Eighty classrooms (kindergarten through grade 8) have been designated as bilingual and a total of 2,160 students are served. Of the approximately 4,500 students enrolled at the six schools, 70% are Puerto Rican; 21%, black; 3%, South American; 2%, Central American; 2%, Cuban; and 2%, Dominican. Forty percent of the students are Spanish monolingual. This is due to the high rate of mobility. There is a constant influx of immigrants and families from Puerto Rico resettling in the area. On the other hand, as much as 20% of the families leave the District in search of jobs and better living conditions.

Families which the schools serve live in inner-city, high-rise housing complexes. Housing is in extremely poor condition with many families having to relocate in order to vacate buildings that will be demolished.

Instruction in kindergarten and first grade is in the student's dominant language. Reading in the second language is introduced in the second grade. Other subjects such as Mathematics, Science, and Social Studies are taught in the student's dominant language up to the sixth grade. Instruction in both languages is in an integrated setting with adaptation and development of curriculum materials in Spanish and English in all subject areas.

Goals and/or Objectives

The major goal of the project is to develop a program of bilingual education that will accelerate the pupils' ability in two languages (English and Spanish) and increase their capacity for self-guidance and self-esteem so that they can deal effectively with a multicultural environment. To accomplish this, the project developed a program of preservice and inservice training that would prepare teachers and teachers' aides to teach effectively in a bilingual environment. Also, the project developed a program of parent and community involvement to improve school/home relations. The program gives parents a more active role in systematically planning, conducting, and evaluating the bilingual education program.

More specifically, the District aim is to develop communication skills in the native language of the student. The District expects to develop comparable achievement in understanding, speaking, reading, and writing in Spanish and English.

Project Staff

The bilingual project staff includes seventy-two teachers, thirty-six aides, two learning disabilities specialists, eight remedial Reading specialists, one curriculum/materials specialist, six school/community liaison persons, five coordinators, and the Project Director. Of these, 112 are Spanish/English bilingual with 104 being Hispanic.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	17	15
Total number of questionnaires received	6	0
Highest earned college degree:		
No degree		
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	2	
Teaching credential only		
M.A. or higher	4	
No response		
Type of state teaching credential held:		
Non-credentialed		
Temporary, provisional, partial-fulfillment, or emergency	2	
Regular credential		
Bilingual-bicultural teaching credential	3	
No response	1	
Years of full-time teaching experience:		
Less than 1 year		
1 year		
2 years		
3 years	1	
4 years	1	
5-9 years	2	
10-19 years		
20-29 years	1	
30 or more years		
No response	1	

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year		
1 year		
2 years	1	
3 years	1	
4 years	2	
5 years	2	
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		
6-15 quarter units (4-10 semester hours)	1	
16-30 quarter units (11-20 semester hours)	1	
More than 30 quarter units (more than 20 semester hrs.)	2	
No college training in bilingual-bicultural	2	
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days	4	
15-30 days	1	
More than 30 days	1	
None		
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$298,300
Other Federal and State	-0-
Other (Private Foundation)	-0-
TOTAL	$298,300

• Per pupil	$138

In addition to the above, the following funds were designated for bilingual project schools:

Federal and State	$ -0-
Other	-0-
TOTAL	$ -0-

• Per pupil	$-0-
• Total per pupil additional funds for bilingual project participants	$138

The $138 per pupil cost is in addition to the District average per pupil cost of $1,000. Considering these totals, the average per pupil cost for students in the bilingual program is $1,138.

CLASSROOM INFORMATION

Impact Study Samples

Of the eighty bilingual classrooms, seventeen were randomly selected to be included in the Impact Study. Seven classrooms were randomly selected for the intensive study which involved observation of classrooms and interviews of teachers and principals. The intensive study included two second grades, one third grade, one fourth grade, two fifth grades, and one sixth grade.

Instructional Strategies for Grade 2

Major Features

Two second grades were included in the intensive study. Students in one class are Spanish dominant; the other class is English dominant. There are twenty students, all Hispanic, in the Spanish-dominant class. The teacher is Hispanic and bilingual. There is one full-time aide and one part-time aide in the class. The two aides are Hispanic and bilingual.

The English dominant class has an enrollment of twenty-four students. Twenty are Hispanic and four are black. The teacher is white non-Hispanic and English monolingual. There are no aides in this class. Spanish language instruction is provided by another teacher who is Hispanic and bilingual.

English Language Instruction for Native-English Speakers

The English-dominant class spends fifteen hours a week in English Language Arts and Reading. Five hours are specifically allotted for Reading. Grammar, capitalization, punctuation, spelling, creative writing, poetry, skits, and storytelling are part of written and oral work. Reading includes phonics and Reading comprehension.

Instruction in written and oral work is directed to the entire class with frequent assignments requiring independent work. During this time, the teacher provides individual instruction. There are two groups (twelve students in each group) for Reading. Both groups are considered low Reading level, and one is remedial Reading level. Criteria used for designating this class as low readers are derived from teacher observation and informal textbook tests.

The main textbooks used in ELA are In Phonics We Use Book B (Lyons and Carnahan Co.), Scott-Foresman Reading System, and SRA series.

English Language Instruction for Native-Spanish Speakers

The Spanish-dominant class spends approximately eleven hours a week in English Language Arts and Reading. Five hours are allotted for Reading instruction. The approach is that of English as a Second Language (ESL). Instruction is in English with some direct translation for better comprehension. Grammar, capitalization, punctuation, spelling, creative writing, pronunciation, vocabulary and controlled conversation are part of written and oral work. Reading includes phonics, oral reading, silent reading, Reading comprehension, and listening comprehension.

There is no permanent grouping for any subject area. The teacher and the aides are aware of each student's ability and level of comprehension. Grouping is for small group instruction, but each group is mixed in regard to student ability. Both the teacher and the aides provide instruction, alternating responsibilities and groups.

Instructional materials and textbooks used in this class are the same as in the English-dominant class.

Spanish Language Instruction for Native-Spanish Speakers

Approximately eleven hours a week are allotted for Spanish Language Arts and Reading. Five hours a week are spent in Reading including instruction in phonics and Reading comprehension. The other six hours are spent in grammar, language mechanics, spelling, creative writing, and oral work such as poetry and storytelling.

All instruction is in Spanish. Both the teacher and the aide provide instruction in all areas of SLA. The teacher usually presents the lesson and the aide provides additional instruction for reinforcement. There are three Reading groups; students are assigned to either the high, average, or low group on the basis of teacher evaluation during the first few weeks of school.

Instructional materials include tapes, cassettes, records, and filmstrips. The main textbooks used are Del Campo al Pueblo, Aprendemos a Leer, Nuestros Amigos, and Camino a la Escuela (Laidlaw series).

Spanish Language Instruction for Native-English Speakers

Spanish Language Arts and Reading for the English-dominant class is presented as second-language instruction. Three hours a week are allotted for Spanish-language instruction with one hour per week set aside for Reading.

The total-immersion-in-Spanish approach is used by the teacher. Occasionally, she will use English for better comprehension. The grouping for Reading is the same as for English Language Arts. There is one low group and one remedial group. Both groups use the Laidlaw series. Additional instructional materials include Scott-Foresman Pictorial Dictionary (Scott Foresman Co.), tapes, cassettes, filmstrips, and flash cards.

Mathematics Instruction

Each of the two classes observed spends five hours a week on Mathematics instruction. Instruction is in English only in the English-dominant class, while English and Spanish are used in the Spanish-dominant class. In this grade level the emphasis is on counting, addition, and subtraction. Some students also receive instruction in multiplication and division. Instruction is directed for the entire class; however, both classes receive individual instruction.

The textbook, Random House Mathematics Program (Random House School Division), is used in the two classrooms. The Spanish-dominant class also uses the textbook, Mathematics Around Us (Scott-Foresman Co.). Additional instructional materials include games, puzzles, and flash cards.

Cultural Component

The cultural component is incorporated with Social Studies and sometimes with Spanish Language Arts (SLA). The course content includes insight into Art, Music, legends, History, holidays, and famous people of the Hispanic cultures. Much of the instructional material is teacher and project developed and produced and includes work sheets, workbooks, and displays. In addition, SLA textbooks and materials are also used for the cultural component.

There is no grouping for the cultural component. Instruction is in English and Spanish with more emphasis on the use of Spanish. Usually one Social Studies period (one hour) a week is used for instruction in the cultural component.

Instructional Strategies for Grade 3

Major Features

All twenty-nine of the students in the third grade observed are Hispanic. The teacher and the aide are Hispanic and bilingual. The aide works with this class on a full-time basis providing instruction and tutoring for the students. Eighteen students are Spanish-dominant, four are English-dominant, and seven are bilingual.

English Language Instruction for Native-English and Native-Spanish Speakers

An average of 10 3/4 hours a week are allotted for English Language Arts. Of these, five hours are used for Reading. There is no grouping for written and oral work, which includes grammar, mechanics, spelling, creative writing, poetry, and storytelling. Both the teacher and the aide work with the students and provide individual instruction as needed.

There are five Reading groups designated as high, high/medium, medium, medium/low, and low. Students are assigned to a group based on teacher observation and evaluation of student performance on third-grade level material. The teacher usually works with the first three groups, and the aide works with the medium/low and low groups. Reading includes phonics, Reading comprehension, and oral reading.

The textbooks used are the Lippincott series, Oceana series, and *Basic Goals in Spelling*.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

Spanish Language Arts (SLA) and Reading follow the same format and content as English Language Arts (ELA). An average 10 3/4 hours a week are allotted for SLA, including five hours a week for Reading. There are four Reading groups, one high, two average, and one low. The major difference between instruction in ELA and in SLA is that in SLA the aide works with all Reading groups providing additional instruction for reinforcement.

The class uses the Laidlaw Reading series and Everyday Spanish (Dixon Co.). Additional instructional materials include slides, filmstrips, tapes, cassettes, and displays.

Mathematics Instruction

Mathematics instruction is in English and Spanish. Usually a new lesson is presented in English. Spanish is used to clarify and reinforce the lesson. A total of five hours a week are allotted for Mathematics. The aide does not work with the class during this period. Usually the teacher spends the first ten to fifteen minutes in assigning tasks. Individualized or small-group instruction is provided during the remaining time.

Addition, subtraction, multiplication, and division are taught in this grade level. The textbook used is Random House Mathematics Program (Random House School Division). Other instructional materials include games, puzzles, worksheets, and flash cards.

Cultural Component

The cultural component is incorporated with Social Studies. A total of 1 1/2 hours a week are allotted for the cultural component. Instructional strategies and materials are the same as those used in the second grade except for grade level. (See section on Cultural Component, Instructional Strategies for Grade 2.)

Instructional Strategies for Grade 4

Major Features

The class observed has an enrollment of eighteen students. All are Hispanic; twelve are bilingual and six are Spanish dominant. The students in this class are considered academically low achievers on the basis of standardized tests, informal testing by the teacher, and teacher observation.

The teacher is Hispanic and bilingual. There is one full-time aide assigned to this class. The aide is also Hispanic and bilingual. Besides providing instruction, the aide serves as a cultural resource person and assists with some of the clerical work.

English Language Instruction for Native-English Speakers

There are no native-English speakers in this class.

English Language Instruction for Native-Spanish Speakers

The students in the class are not necessarily Spanish-dominant but need extra help in developing English skills. English Language Arts and Reading is approached as second-language acquisition with concentration in elementary principles. The aide assists the teacher in developing the curriculum which consists mostly of vocabulary skills and oral English development. Three hours a week are spent in written and oral English. Reading instruction, which includes Reading comprehension, phonics, listening comprehension, and oral reading, is separate. Five hours a week are allotted for Reading.

Both the teacher and the aide provide instruction. They provide individual instruction or work with small groups. The only permanent grouping is for Reading. Students are assigned to either of the two groups. One group is low and the other low/remedial.

Instruction in ESL and Reading is in English with some direct translation as needed for better comprehension. Tapes, cassettes, filmstrips, and records are used for audio-lingual development. Much of the instructional material, such as worksheets, are teacher/teacher aide developed and produced. The Ginn series is used for Reading. This includes the textbooks The Dog Next Door, Seven is Magic, and Sounds and Syllables.

Spanish Language Instruction for Native-Spanish Speakers

Six hours a week are allotted for SSL including two hours a week for Reading. The class is divided into two groups, one average and one average/low. Each group receives instruction in written and oral work and reading.

Written and oral work includes Spanish grammar and mechanics, spelling, vocabulary, conversation, and structured dialogue. Reading includes phonics, oral reading, Reading comprehension, and listening comprehension. Audio-visual equipment such as cassettes and filmstrips are used for instructional material in addition to the Laidlaw series for reading and language skills development.

Instruction is in Spanish with some English. Both the teacher and the aide provide instruction, alternating groups frequently.

Spanish Language Instruction for Native-English Speakers

There are no native-English speakers in this class.

Mathematics Instruction

The students receive a total of seven hours of Mathematics instruction a week. They receive four hours of instruction with the regular classroom teacher and three hours of extra instruction in the Mathematics Lab.

There is no grouping in the class for Mathematics instruction. Instruction is in English and directed for the entire class. Both the teacher and the aide provide individual instruction during the time provided for independent work. The students receive additional individualized instruction in the Mathematics Lab which is designed to provide extra help and reinforce regular instruction.

The Random House Mathematics Program (Random House School Division) is used in the regular class and lab.

Cultural Component

With the difference in grade level material being studied, the format and materials used in the cultural component are the same a those used in second grade. (See section on Cultural Component, Instructional Strategies for Grade 2.)

Instructional Strategies for Grade 5

Major Features

Two fifth grades were included in the intensive study. One is a Spanish-dominant class and the other is considered an English-dominant class although the students are English/Spanish bilingual. There are twenty-three students in the Spanish-dominant class and thirty in the English-dominant class. All students in both classes are Hispanic.

Instruction in all subjects is provided by the classroom teachers. There is one aide, who works with the Spanish-dominant class during the Mathematics period. The two teachers and the aide are Hispanic and bilingual.

English Language Instruction for Native-English Speakers

The English-dominant class receives ten hours of English language instruction a week, including five hours for Reading. There is no grouping for instruction. Individual or small-group instruction is provided during periods of independent work. Students receive instruction in written and oral English, Reading, Reading comprehension, and phonics. The textbook used is Ventures-Basal Reader and Workbook (Scott Foresman Co.)

English Language Instruction for Native-Spanish Speakers

Students in the Spanish-dominant class receive English as a Second Language instruction. They receive three hours of instruction a week including 1 1/2 hours of Reading instruction. The class is divided into three groups. Within each group instruction is provided in Reading, written English, and oral English. Students are assigned to a group based on teacher observation of student work and criterion-referenced tests.

The Lado English series is used in the class. The high group uses Lado III, the medium group uses Lado II, and the low group uses Lado I. Additional instructional material include tapes, cassettes, filmstrips, movies, and records.

Spanish Language Instruction for Native-Spanish Speakers

Spanish Language Arts for the Spanish-dominant class includes instruction in written and oral Spanish, Reading, Reading comprehension, and phonics. Three hours per week are spent in SLA including 1 1/2 hours for Reading.

All instruction is in Spanish. There is no grouping for written and oral work. Instruction is directed to the entire class with frequent assignments requiring independent work. Grammar and mechanics instruction is based on the Lengua Española series.

Based on teacher observation and evaluation, students are assigned to either of the two Reading groups. One is a high/average group, and the other is a low group. Both groups use the Santillana series for Reading instruction.

Spanish Language Instruction for Native-English Speakers

Spanish language instruction for the English-dominant class follows the same format as that for English Language Arts. This includes content, time frames, and instructional strategies. Instruction in SLA is almost entirely in Spanish with some use of English for better comprehension. The textbook Everyday Spanish (Regents Publishing Co.) is used in addition to the Santillana and Laidlaw series.

Mathematics Instruction

The Spanish-dominant class is instructed three hours a week in Mathematics. There is no grouping for Mathematics. Instruction is directed to the entire class. Individual instruction and tutoring are provided by the aide. Usually new material is presented in Spanish and translated to English in order to familiarize students with the material in both languages. The textbook used is Matemáticas Modernas (Merrill series). The companion workbook, Libro de Trabajo, and cassette tapes, Skilltapes, are also used.

The English-dominant class is instructed five hours a week in Mathematics. As in the Spanish-dominant class, there is no grouping. Instruction is directed to the entire class. The teacher provides individual instruction during periods of independent work. Instruction is in English and Spanish which is used sometimes for better comprehension and reinforcement. The class textbook is Random House Mathematics Program (Random House School Division).

Cultural Component

Both classes spent 3 3/4 hours a week on the cultural component which is incorporated with Social Studies. In this grade level, the history, geography, and cultures of the Western Hemisphere are being studied. Emphasis is on the history and culture of the Hispanic countries.

Instruction in the Spanish-dominant class is in Spanish only. The English-dominant class receives instruction in English with Spanish used often for more emphasis.

There is no grouping for instruction. Often there are independent Reading and worksheet assignments. Both classes use the Plus Ultra series for the cultural component. The textbooks are Puerto Rico en mi Corazón, Conociéndo a Borinque, Las Américas y sus Pueblos. Also used in the class is the Atlas Escolar (Hammond Incorp.) combined textbook and workbook.

Instructional Strategies for Grade 6

Major Features

Total enrollment in this class is twenty-seven. All the students are Hispanic and bilingual. They have a different teacher for each subject. Every day, the students attend six different classes. Also, they receive instruction in Art, Shop, and Gym alternately (two periods a week in Shop, two periods a week in Gym, and one period a week in Art). All together, the students receive instruction from nine teachers. Six are white non-Hispanic, and three are Hispanic. The three Hispanic teachers are bilingual, and three of the non-Hispanic white teachers are bilingual. The other three non-Hispanic teachers are English monolingual. There is one Hispanic/bilingual teacher aide in English Language Arts.

English Language Instruction for Native-English Speakers

There are no native-English speakers in this class.

English Language Instruction for Native-Spanish Speakers

The students receive 6 1/2 hours of English Language Arts instruction a week. Two hours a week are specifically allotted for Reading. There is no grouping for written and oral work. This includes English grammar and mechanics, spelling, creative writing, poetry, and conversation. Reading includes phonics, oral reading, and Reading comprehension. Grouping in Reading is on a random basis with either teacher, the aide or student leaders in charge of four or five groups. Sometimes there is homogeneous reading, and often the students will read individually using the SRA series.

Both the teacher and the aide are Hispanic and bilingual. Instruction is in English. Spanish is used only when needed for better comprehension.

The following textbooks are used for ELA: Alike but Different (Globe Book Co.), Spelling Word List (Board of Education, New York City), Study Skills (Allyn and Bacon Co.), and SRA series.

Spanish Language Instruction for Native-Spanish Speakers

The class receives 3 3/4 hours of Spanish language instruction a week, including 1 1/2 hours of Reading. Written and oral work includes Spanish grammar and mechanics, spelling, creative writing, plays, poetry, and conversation. In Reading, the students receive instruction in phonics and Reading comprehension. There is no grouping for Reading. Individual instruction is provided during periods of independent work.

Instructional material used in this class includes cultural aspects. The textbook, La Vida Daria (Lengual Española series), incorporates cultural heritage, SLA, and Reading. Audiovisual equipment such as cassetes, filmstrips, and slides are used for independent work.

Spanish Language Instruction for Native-English Speakers

There are no native-English speakers in this class.

Mathematics Instruction

Mathematics instruction is in Spanish and English. Students are encouraged to use whichever language they feel more comfortable with and/or can better understand. The class receives 3 3/4 hours of Mathematics instruction a week. There is no aide in the class. Instruction is directed for the entire class with some individual instruction provided during the time spent in independent work.

The course content includes instruction in addition, subtraction, multiplication, division, fractions, percentages, measurement, geometry, and introduction of algebra. Students are also exposed to the new math. The main textbook used is Refresher Mathematics/Repaso Matemático.

Cultural Component

There is no separate cultural component in the grade. Aspects of the Hispanic cultures are studied in Spanish Language Arts.

Parent and Community Involvement

Direct parental involvement in the school is mostly through parent conferences. The schools maintain a policy of open and direct communication with parents regarding actions to be taken by the principals and teachers in significant school affairs. Parents are also encouraged to attend and participate in the Parent/Teacher Association, school board, and advisory council meetings.

Other parental involvement includes assisting teachers in school functions such as parties and field trips. The bilingual project maintains ongoing training sessions to educate and prepare parents and the community for more active involvement in school affairs and input in the decision-making process.

PROJECT 6

PROJECT INFORMATION

Project Context and Target Population

Project 6 was initiated in 1971. At that time bilingual instruction was given at the kindergarten and first-grade levels in six of the local elementary schools. During the 1975-76 school year, bilingual instruction was available to 500 project students in kindergarten through grade 5. There are a total of twenty-four classrooms in this project. Five schools offer bilingual instruction in several designated classes, and in one school all classes are bilingual. Approximately 50% of the students are of Hispanic ethnic background: most of these are of Puerto Rican descent although there are some Dominicans, Cubans, and Central Americans; 45% are black; 5% are of white non-Hispanic origin.

The project is located in a city with a multiethnic population. About half of the residents are white non-Hispanic; the remainder includes 30% black Americans and 20% Puerto Ricans. The socioeconomic status of the community is primarily middle class, and the range of occupations runs from professionals to semiskilled and unskilled laborers.

Within the framework of the project, the socioeconomic status of the families served by the schools is predominantly lower middle class. The majority of the employed parents are unskilled workers and earn an annual income of from $6,000 to $8,000.

Goals and/or Objectives

Project goals and objectives include the following:

- To develop student cognitive and academic skills in the areas of Reading and Mathematics
- To teach an appreciation for bilingualism/biculturalism
- To ensure that students will be able to function well within the limits of their aptitudes

- To maintain an ethnic and linguistic balance in the target classroom
- To integrate minority subgroups into the multiethnic community
- To maintain a permanent staff of balanced bilingual instructors
- To build up a repository of resource materials to be used in the bilingual classrooms

Project Staff

During the 1975-76 school year the project staff included twenty-four bilingual classroom teachers, ten bilingual paraprofessional aides, ten English as a Second Language teachers, and a full-time secretary. The position of Project Director remained vacant and was filled by the Director of Elementary Education until the latter part of the school year when a project supervisor was found. The position of Project Director still remains vacant.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	6	1
Total number of questionnaires received	6	0
Highest earned college degree:		
No degree		
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	4	
Teaching credential only		
M.A. or higher	2	
No response		
Type of state teaching credential held:		
Non-credentialed		
Temporary, provisional, partial-fulfillment, or emergency	1	
Regular credential	5	
Bilingual-bicultural teaching credential		
No response		
Years of full-time teaching experience:		
Less than 1 year	1	
1 year		
2 years	2	
3 years	1	
4 years		
5-9 years	1	
10-19 years	1	
20-29 years		
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	2	
1 year		
2 years	3	
3 years		
4 years		
5 years		
More than 5 years	1	
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		
6-15 quarter units (4-10 semester hours)	3	
16-30 quarter units (11-20 semester hours)	1	
More than 30 quarter units (more than 20 semester hrs.)	2	
No college training in bilingual-bicultural		
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less	2	
2-15 days	1	
15-30 days	2	
More than 30 days		
None	1	
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$212,600	
Other Federal and State	-0-	
Other	-0-	
TOTAL	$212,600	
• Per pupil		$425.20

In addition to the above, the following funds were designated for bilingual project schools:

School A		
Federal and State	$36,999	
Other	-0-	
TOTAL	$36,999	
• Per pupil		$105.71
• Total per pupil additional funds for bilingual project participants		$530.91

School B		
Federal and State	-0-	
Other	-0-	
TOTAL	-0-	
• Per pupil		-0-
• Total per pupil additional funds for bilingual project participants		$425.20

The bilingual project is also assisted in its staff development program by a local private university which provides $150,000 in tuition for project teachers who attend a summer session and/or bilingual education courses during the school year.

CLASSROOM INFORMATION

Major Features of Classrooms Observed

- All teachers give instruction using objectives which have been developed for the city schools.
- Objectives cover all content areas including Spanish.
- All teachers must test students incividually throughout the year to assure that a student performs according to the objectives.
- Statewide testing is quite extensive.
- The allotment of Spanish Reading materials was such that there were two pupils per book.
- Teachers prepared extensive instructional materials in Spanish to supplement available materials.
- These materials were specifically designed for the grade and ability levels of the students.
- English as a Second Language instruction is done on a pull-out basis.

Impact Study Samples

The information included in this section is based on discussions with project staff and on classroom observations in three of the project classes. The second and third grade classes are located in the project school in which bilingual instruction is given to all students. The fourth-grade class is located in a school in which six of the classes are designated as bilingual.

Instructional Strategies for Grade 2

Major Features

- Local objectives are used as the basis for the classroom curriculum.

- Students receive instruction in Spanish Language Arts and English Language Arts from the classroom teacher.
- The content areas of Mathematics, Social Studies and Science are instructed in Spanish and English. The teacher uses both languages equally for the purpose of explanation.
- English as a Second Language instruction is given by another teacher on a pull-out basis.
- A volunteer tutor from a local university assists in this class three hours each week.
- Both individual and group instruction are given.

English Language Instruction for Native-English and Native-Spanish Speakers

English Reading is taught about four hours a week to both Hispanic and non-Hispanic students. The students are divided into three groups based upon ability. All three groups are using the Open Court series. The most advanced group is receiving special enrichment consisting of more accelerated Reading books found in the classroom library and extra writing assignments. The classroom teacher spends about fifteen to twenty minutes a day with each Reading group, drilling the students on phonics, having them read orally, and asking them comprehension questions. After she finishes with one group, the students must do writing assignments in their workbooks or work on exercise sheets. The teacher individualizes instruction when students show a need for special attention. She also has the class compose a story which she writes on a large chart. If some of the students do not understand all the words in English, she translates the words or phrases as she sees fit.

Nine of the ten Spanish-dominant students in addition receive English as a Second Language (ESL) instruction thirty minutes each day in another room. The ESL teacher is a monolingual speaker of English and holds a provisional credential. The students are divided into groups based on ability and spend most of their time on written work. Locally developed materials used are based on the local objectives.

Spanish Language Instruction for Native-Spanish and Native English Speakers

The class is divided into three groups for Spanish Reading, which is taught by the regular classroom teacher. There are two groups at the second-grade level using the Laidlaw series. The third group is reading at the first-grade level and is also using the Laidlaw series. Three students are not receiving Spanish instruction.

Spanish Reading is taught for 2 1/2 hours a week. This time includes both oral and written work. Oral reading is done in the groups, and afterwards the students do their written work either in their workbooks or on locally prepared ditto sheets. Written work includes grammar, spelling, dictation, and punctuation. As a class, the students either dictate a life experience to the teacher in Spanish or translate an English story into Spanish. The teacher reads Spanish stories to the class and also teaches them songs.

The teacher individualizes instruction when students demonstrate the need for special attention. She also has more advanced students doing extra reading from the classroom library. Those students who are capable in writing have the option of composing short stories whenever they have extra time.

The classroom teacher gives Spanish as a Second Language (SSL) instruction approximately two hours a week. Of the nine students who are taking the class, two are Hispanic, and the rest are black. The teacher spends most of her instructional time on oral drills, using modeling, repetition, and simple question and answer drills to improve their oral skills. She also uses pictures, charts, and flashcards as visual aids. During class, she works on vocabulary building, teaches the students songs, and tells them stories. She encourages the students to speak only in Spanish; but, if she finds that they do not understand something she has said, she translates the word, or words, into English.

Mathematics

Mathematics instruction is given approximately 4 1/2 hours a week. Although the textbook is in English, the language of instruction is

75% English and 25% Spanish. The teacher has the students work on dittos she herself has prepared, which are based on materials in the Mathematics textbooks. She individualizes instruction in Spanish when necessary and also has the students help one another if the need arises.

Cultural Component

Social Studies is taught about thirty minutes a week and is incorporated into the bilingual project as the occassion demands. This year (1975-76) the students studied about Puerto Rican Discovery Day, Martin Luther King Day and other holidays. Spanish and English are used equally during the Social Studies Class.

Instructional Strategies for Grade 3

Major Features

- The local objectives form the basic curriculum.
- The teacher uses locally produced materials for instruction including flash cards and charts.
- Two strategies are employed: individualized instruction and group instruction.
- Students are pulled out for ESL instruction.

English Language Instruction for Native-English and Native-Spanish Speakers

English Reading is taught ten hours weekly. There are two basic groups which include eight students who are reading at grade level and eight are reading a little below grade level. There are also two students who are just learning their phonics, and each one is receiving three hours of additional tutoring weekly from two college students who are volunteers. Both Reading groups are using the Open Court series, and the Bank Street and Sullivan readers are used as supplementary material. The teacher uses two basic strategies to teach English Reading: grouping and individualized instruction based upon need. Students who are able to read either do so silently or read aloud in the group. Reading includes a phonics warm-up and is followed by a discussion period. Those students who are unable to read or who have difficulty reading are either read to by the teacher or are given more specialized instruction.

Since the students do not have workbooks with their readers, most written work is done on locally produced dittos. Each student follows a program based on the prescribed objectives.

Seven students are receiving ESL instruction 2 1/2 hours a week. The instructor is the same person as for Grade 2, the curriculum is based on the objectives for ESL, and there are no textbooks. Most of the time is spent on oral work, the writing of student-produced sentences, and songs and games.

Spanish Language Instruction for Native-English and Native-Spanish Speakers

Spanish Reading instruction is taught 3 3/4 hours weekly. There are two Reading groups: one group is composed of eight native-Spanish speakers who are reading slightly below third-grade level; the other group is composed of seven students who are learning Spanish as a Second Language. Students share books, and there is little continuity from grade to grade in Spanish Reading because different series are used and each series has its own program to follow. The teacher uses locally produced materials which are based on the district's prescribed objectives. Three students do not participate in Spanish Reading because they are experiencing difficulty in English Reading.

Spanish Language Instruction for Native-English Speakers

Eight students are receiving SSL instruction from the classroom teacher. All of the work is oral, and locally produced materials are used as visual aids. The teacher spends much of the time on vocabulary building, sentence completion, and discussions based on specific topics and reads stories to them. She also uses flash cards. Most of the instruction is given in Spanish, although the students are permitted to use English when necessary.

Mathematics Instruction

Mathematics instruction is given 2 1/2 hours each week. It is individualized and based on the local curriculum. The textbook is entitled Exploring Elementary Mathematics (Holt, Rinehart & Winston). The exercise sheets are either locally produced or photocopied from other Mathematics books. The languages of instruction are English (65%) and Spanish (35%).

Cultural Component

The Social Studies instruction is the same as in the second grade except that more English is used.

Instructional Strategies for Grade 4

Major Features

- The homeroom teacher works in a cluster with two other fourth-grade teachers.
- Homeroom students receive instruction from three other teachers in English Reading and Mathematics.
- The homeroom teacher teaches Spanish Reading, Spanish as as a Second Language (SSL), and Social Studies.
- The teacher has developed a number of visual aids and other materials for Mathematics and SSL instruction.

English Language Instruction for Native-Spanish and Native-English Speakers

The classroom teacher instructs fourteen pupils in English Reading. She has the lowest group in the cluster. Four of the students are reading at first-grade level, and ten are reading at third-grade level. Reading instruction is approximately five hours a week, although this varies because whenever there is free time the classroom teacher has her students do extra reading. The teacher uses three basic strategies for Reading: grouping according to ability and/or need; individualized instruction based on ability; and entire-class instruction. Each week the students read a story from the textbook. Stories from Everywhere. New vocabulary and spelling are reviewed by the entire class. Students who are able to read on their own do so, and those who have difficulty are instructed in small groups or individually by the teacher. The teacher makes tapes of the stories so that students can read along with the tapes. She also makes use of the Language Master, charts, flash cards, and records as audiovisual aids. In addition to the standard textbook, each student has an individualized programmed reader that is used at least fifteen minutes each day, sometimes more when there is free time. In this class, English is the sole language of instruction.

According to the teacher, twelve students are receiving ESL instruction 2 1/2 hours each week. Since the ESL teacher had gone on a leave of absence during the week observations were made, no interviews were held.

Spanish Language Instruction for Native-Spanish Speakers

Spanish Reading is now being taught one hour each week to all students in the class. The teacher was allotted textbooks entitled Lengua Espanola, which she felt were much too difficult for the students. She therefore uses primarily the materials that she has created. These include tapes, exercise sheets, games, flash cards, and charts.

Spanish Language Instruction for Native-English Speakers

Five students are receiving SSL instruction from the classroom teacher. The work is all oral with the emphasis on pronunciation, sentence patterns, sentence cpmpletion, and vocabulary building. She teaches the students songs; has them play games, work scrambles, and learn their numbers in Spanish; and plays tapes of familiar stories. She instructs them in Spanish about 80% of the time and uses English to explain things the students do not understand.

Mathematics Instruction

Mathematics is taught approximately 4 1/2 hours each week, and instruction is based on the prescribed objectives. The language of instruction is English. The textbook is entitled Exploring Elementary Mathematics. The class is taught Mathematics as an entire group. The teacher uses locally produced worksheets and makes her own charts for visual aids. She individualizes instruction as the need arises.

Cultural Component

Social Studies is taught about 1/2 hour each week, although it may vary depending upon a holiday such as Black History Week or Puerto Rican Discovery Day. Instruction is based on the prescribed objectives.

Parent and Community Involvement

Parents of the second-graders come in on an informal basis to inquire about their children. All parents appeared at the parent/teacher conference last fall (1975), and all were expected to participate in the spring (1976).

Parental involvement in the third grade is high for parent/teacher conferences. In the fall, all of the parents attended the parent teacher meeting, and all were expected to attend in the spring. During the year, parents have participated in special functions such as Puerto Rican Discovery Day, Valentine's Day, Halloween, and Black History Week.

There is some parental involvement in the fourth-grade class for parent/teacher conferences. Last fall, approximately 80% of the parents talked with the teacher about their children's report cards.

PROJECT 7

PROJECT INFORMATION

Project Context and Target Population

Project 7 was initiated in 1971 in the kindergarten and first grade. During the 1975-76 school year, 400 students received bilingual instruction in kindergarten through grade 5. There are twelve classrooms in the school, which is currently operating in the annex of one of the elementary schools, about two blocks away from the main building. The ethnic background of the students attending the bilingual school is 82% Hispanic and 18% black American. Of the Hispanic students, 75% are Puerto Rican and 7% are Cuban, Dominican, and Central American. The socioeconomic status of the families served by the school is predominantly lower middle class. The majority of parents are either semiskilled or unskilled laborers whose annual income falls within the range of $6,000 to $8,000. According to the principal, the mobility rate in the school is 25%, and often the same students move in and out of the school two to three times a year. Mobility rate is determined in part by unemployment or other financial problems.

Goals and Objectives

Project goals and objectives are as follows:

- To maintain native language proficiency in English or Spanish
- To improve and expand upon second-language skills
- To recruit and train a highly competent bilingual staff
- To develop and expand the Spanish-language resource materials
- To strengthen the student's self-concept
- To develop a positive interaction between students of different ethnic groups
- To develop a positive interaction between the project staff and parents of the community

Project Staff

The bilingual project staff includes a bilingual project director, a school/community liaison, a curriculum materials specialist, and a full-time secretary. There are twelve full-time classroom teachers, nine educational assistants (paraprofessionals), and three teacher-trainees from a local college.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides, whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	9	5
Total number of questionnaires received	9	5
Highest earned college degree:		
No degree		2
Degree or diploma based on less than 4 years of work		2
B.A. or B.S.	4	1
Teaching credential only		
M.A. or higher	5	
No response		
Type of state teaching credential held:		
Non-credentialed		3
Temporary, provisional, partial-fulfillment, or emergency	1	
Regular credential	3	
Bilingual-bicultural teaching credential	5	1
No response		1
Years of full-time teaching experience:		
Less than 1 year		1
1 year	1	1
2 years	1	1
3 years		1
4 years	3	
5-9 years	1	
10-19 years	2	
20-29 years	1	
30 or more years		
No response		1

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	1	
1 year	2	3
2 years	3	1
3 years	1	1
4 years	1	
5 years	1	
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)	3	2
6-15 quarter units (4-10 semester hours)	1	1
16-30 quarter units (11-20 semester hours)	1	1
More than 30 quarter units (more than 20 semester hrs.)	2	
No college training in bilingual-bicultural	2	1
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less	1	
2-15 days	3	1
15-30 days	1	1
More than 30 days		3
None	4	
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$236,500	
Other Federal and State	-0-	
Other	-0-	
TOTAL	$236,500	
• Per pupil		$591.25

In addition to the above, the following funds were designated for bilingual project schools:

School A		
Federal and State*	$237,350	
Other	-0-	
TOTAL	$237,350	
• Per pupil		$215.77
• Total per pupil additional funds for bilingual project participants		$807.02

* The federal aid at this school came from Title I; the state aid included funds for special education and for textbooks.

CLASSROOM INFORMATION

Major Features

- The project follows a program of native-language maintenance.
- Students are given instruction in their native language in Reading, Language Arts, Mathematics, Social Studies, and Science.
- Second-language instruction is oral at the outset.
- Reading instruction in the second language is commenced when the student becomes proficient in Reading in his/her native language.

- Students are tracked according to language dominance when they first enter school.
- At each grade level there are two components: one composed of English-dominant students and the other of Spanish-dominant students.
- The students remain in the same component while they are in this project.
- Each classroom teacher is assisted either by a paraprofessional aide and/or a teacher-trainee.
- The majority of classroom teachers and trainees at the school are taking courses at a local university in the area of bilingual education.
- There is an ongoing relationship between the university and the District.
- The paraprofessional aides are supplied by Pupil Services at the Board of Education.

Impact Study Samples

Originally, one of the two second-grade classes which were tested was randomly selected for detailed observation in this project. However, because of the tracking according to language dominance, it was decided that both should be included in this portion of the study.

Instructional Strategies for Grade 2

Major Features

The English-Dominant Component

- The English-dominant component is taught by the classroom teacher and a full-time team-teacher under her supervision.
- Both the teacher and the team-teacher aide are bilingual and of Puerto Rican descent.
- The second-grade teacher in the Spanish component instructs the

English-dominant students in Spanish as a Second Language, Spanish Reading, and Science.

- A bilingual Mathematics resource teacher works with several of the students.
- The class enrollment is thirty students; seventeen Puerto Ricans, eight blacks, two Dominicans, one student of mixed Puerto Rican and Dominincan ethnicity, another of Puerto Rican and American black ethnicity, and one of American black and Haitian ethnicity.

The Spanish-Dominant Component

- The Spanish component is taught by the classroom teacher and a full-time educational assistant.
- Both the teacher and the assistant are bilingual and of Puerto Rican descent.
- The second-grade teacher of the English component teaches English as a Second Language and English Reading to the Spanish-dominant students.
- Another full-time teacher from the main school teaches Science for forty-five minutes a week.
- The classroom enrollment is thirty-three: twenty-eight Puerto Ricans, two Cubans, two Dominicans, and one Central American.

English Language Instruction for Native-English Speakers

English Reading is taught five hours a week. There are two basic strategies for instruction: ability grouping and entire-group instruction. The students are divided into three Reading groups: a high group of four, a medium group of fourteen, and a low group of ten. The top group and the lowest group are taught by the team-teacher and the other by the classroom teacher. Within the two top groups, the students do silent and oral skits, Reading, phonics, and Reading comprehensions. They are using the Bank Street series which includes a workbook and are reading at the second-grade level. They also do individualized reading in the Specific Skills Series. The written work includes capitalization, punctuation, spelling, grammar, fiction, and vocabulary building. The lowest group is working on sight vocabulary, phonics, and sentence formation.

As a group, the class puts on plays and short skits, learns poetry, does choral reading, and sings songs. Group instruction is approximately two hours a week although this varies.

The supplementary materials are made by the teacher and include charts and exercise sheets.

English Language Instruction for Native-Spanish Speakers

English as a Second Language is taught 3 3/4 hours a week by the classroom teacher of the English component, a paraprofessional aide, an ESL specialist, and the team-teacher. There are two groups each with fifteen students. The top group has fifteen Spanish-dominant students who are instructed by the classroom teacher. The students are reading at the first-grade level and are using the Miami Linguistics series and its workbook and the Weekly Reader. As a group they work on oral reading and phonics and answer comprehension questions. Their written work includes capitalization, punctuation, and vocabulary building. For oral work they have storytelling, and they use records for listening comprehension.

The fifteen students in the slower group are instructed by a paraprofessional and are doing oral work only. The students work on phonics and vocabulary building. One student sees the ESL specialist three hours per week, and the classroom teacher works with three students three hours per week.

Spanish Language Instruction for Native-Spanish Speakers

Spanish Reading is taught 3 3/4 hours a week by the classroom teacher, the paraprofessional aide, and another classroom teacher. The students are divided into three groups based on ability. The top group of twelve students is instructed by the aide in phonics, oral reading, and reading comprehension. The students have a Spanish Reading book and an accompanying workbook in which they do grammatical exercises, punctuation, and spelling. They also do creative writing. The classroom teacher instructs the next group of fourteen students. She has the students do the same type of work within the group and places much emphasis on their Reading and grammar skills. The third group of seven students is working with another teacher and are in a pre-primer and spend time on phonics and Reading comprehension.

As a class, the students study poetry, listen to stories, put on skits, and sing.

Spanish Language Instruction for Native-English Speakers

Eleven students from the English-dominant component are learning Spanish as a Second Language. They are doing oral work only. This involves vocabulary building, pronunciation, and pattern drills.

Mathematics Instruction

The English-dominant group studies Mathematics for four hours a week. Two strategies are used as a means of instruction. One is based on grouping by ability, while the other is based on individualized instruction at the Mathematics center.

The twelve students in the top group are instructed by the classroom teacher. The students are working at grade level and are using the textbook Mathematics (Silver Burdett). The five students in the second group which is at the first-grade, second-semester level, is instructed by the Mathematics resource teacher.

The ten students in the third group work with the team-teacher. They can do only simple addition and subtraction problems. Whenever students are absent, they are sent to the remedial teacher for reinforcement. Materials include textbooks, workbooks, locally produced exercise sheets, mathematical games, and flash cards produced by the teacher.

The Spanish component receives Mathematics instruction 3 3/4 hours a week from the classroom teacher and the paraprofessional aide. The aide instructs the top group of fourteen students in English. The classroom teacher instructs nineteen students in Spanish. The students are learning the new math, measurement, addition, and subtraction. The second group is approximately six months behind the first. The textbook used is Mathematics (Silver Burdett). During classroom instruction, the teacher uses visual aids as well as manipulative materials to make concepts clear as well as interesting.

Cultural Component

Social Studies is multicultural in approach in both the English and Spanish components. It is taught about forty-five minutes a week, bilingually in both classes, and includes instruction about holidays, famous people, songs, fables, and legends.

Instructional Strategies for Grade 4

English-Dominant Component

- The English-dominant component is instructed by an English monolingual and a full-time paraprofessional aide.
- There are twenty-eight students enrolled in the class: seventeen students of Puerto Rican ethnicity and eleven blacks.
- The classroom teacher teaches English Reading, Mathematics, Social Studies, and Science to the class and ESL to the fourth-grade Spanish component.

Spanish-Dominant Component

- The Spanish-dominant component is taught by a bilingual instructor, a teacher-trainee, and a paraprofessional aide.
- All are bilingual and work full time at the school.
- There are twenty-five students in the class: twenty-one students of Puerto Rican ethnicity, two Dominicans, one South American, and one Central American.
- The classroom teacher teaches Spanish Reading, Mathematics, and Social Studies.
- She team-teaches with another full-time teacher in Science and teaches SSL to the students of the English-dominant component.

English Language Instruction for Native-Spanish and Native-English Speakers

English Reading is taught approximately nine hours a week in the English component. The strategies for instruction include individualization and small-group instruction.

The eleven students in the top group spend the mornings on independent work from the SRA Reading kit which includes stories and questions about the readings. They work on vocabulary and have an individual skills checklist. In the afternoon this group is instructed by the classroom teacher who uses a fifth-grade textbook called Enchanted Isles.

The other two groups, one of ten students and the other of six, are instructed by the classroom teacher and the teacher-trainee, respectively. They are using basal readers and are reading at the first- to third-grade levels. Within the groups, the students work on phonics, Reading, and writing. The students each have a spelling book, a workbook, and a phonics book. They also use the SRA kits for independent reading. All students are required to give book reports and present them orally. As a group they also act in plays. Students are grouped by ability, and regrouping rarely occurs.

In the Spanish component, English Reading is taught four hours a week by the classroom teacher, a teacher-trainee, the paraprofessional aide, and the Reading specialist teacher. The students are grouped by ability and spend twenty-five minutes on Reading and twenty minutes on writing. One student who is reading at grade level has individualized instruction.

The range of levels is from prereading, including phonics, to fourth grade. Twelve students are at the third-grade level, and twelve are at the second-grade level or below. Within the Reading groups the students study phonics, oral reading, and reading comprehension. All students have workbooks and phonics books. The students who are reading at third-grade level or above do creative writing and dictionary work.

Twenty-two students are receiving ESL instruction from the classroom teacher of the English component who is English monolingual. He does oral work with the students based on vocabulary building, definitions, and pronunciation. His approach is total immersion. He has the students play language games in teams to make the class interesting for the students.

Spanish Language Instruction for Native-Spanish Speakers

In the Spanish component, Spanish Reading is taught four hours a week. The instructors include the classroom teacher, the teacher-trainee, the paraprofessional aide, and another classroom teacher from the third grade. Sixteen students are reading at the fourth-grade level or above, and they are divided into two groups instructed by the classroom teacher and the teacher-trainee. Ten students are reading at the third-grade level or above. Four of these students receive instruction from a third-grade teacher. Two students who are reading at the first-grade level are taught by the aide.

The top groups are using the Laidlaw series with its accompanying workbook. The group at the third-grade level is reading Conozcamos a Puerto Rico and is using the workbook.

Writing, grammar, spelling, creative writing (top group only), and vocabulary building are taught about an hour a week in conjunction with the Reading. With the exception of new arrivals, students are rarely regrouped.

Spanish Language Instruction for Native-English Speakers

In the English component, Spanish Reading is taught two hours each week by the teachers in the fourth-grade Spanish component who switch rooms with the teacher of the English component. There are three groups. One group of fifteen students is taught by the teacher of the Spanish component. The students do oral reading in the primer Aprendemos a Leer (Laidlaw Series), and for writing they do sentence completion, multiple choice, and word fill-ins. For phonetics, the teacher uses flash cards and board work. The aide teaches the top group of three students using Level II of the Laidlaw series, a first-grade reader. The students do oral reading and write in the accompanying workbook. They are learning new vocabulary and some grammar. The ten students in the third group are doing oral work only, based on concepts such as family, parts of the body, parts of a room, etc. This group is instructed by the teacher-trainee who uses charts and pictures as visual aids.

Mathematics Instruction

In the English component, Mathematics is taught in English only for 3 3/4 hours a week by the teacher-trainee and the regular teacher. The textbook which is used is called Mathematics. In general the students are instructed as a group, and individualized instruction is given as the need arises. Students use workbooks as well as locally produced exercise sheets.

In the Spanish component, Mathematics is taught bilingually for 3 3/4 hours a week. The classroom teacher instructs the top group of seventeen students using the English textbook Mathematics. The students are working at grade level. The six students in the other group are using the Spanish version of the textbook and are on the second-grade level. This group is instructed by the paraprofessional aide.

Cultural Component

Social Studies is taught as part of the standard curriculum. Special emphasis is placed on biculturalism when certain holidays such as Puerto Rican Discovery Day or Black History Week occur.

In the English component, instruction is in English. In the Spanish component, both languages are used for instruction. From thirty to forty-five minutes a week are spent in this subject, although the time may vary depending on the occasion.

Parent and Community Involvement

In both of the second-grade classrooms, students went on several field trips including trips to the theater, the zoo, and a local aquarium. They also had several large parties for special occasions including Puerto Rican Discovery Day, Christmas, Easter, and Martin Luther King Day.

In the Spanish component, five parents accompanied the students on field trips, ten came once each semester for class parties, and ten visited with the teacher to discuss student performance.

In the English component, two parents attended class parties each semester, ten parents participated in field trips, and eight parents visited the teacher from time to time to discuss student performance. According to both teachers, most parents usually visit the classes on an informal basis.

In the fourth-grade Spanish component, three parents attended class parties, three parents visited the class on a daily basis, and six had conferences with the teacher each semester.

PROJECT 8

PROJECT INFORMATION

Project Context and Target Population

Project 8 began in 1971 as a pilot project under Title I funding. It was funded by Title VII in 1972.

The District is located in a city that is both a suburban and an industrial city in a large metropolitan area. In terms of eligibility for State Aid for Dependent Children, the school District has about 11% low-income families, and the area surrounding the Title VII schools have an even higher percentage of such families. About 15% of the district students are of limited English-speaking ability. The District has thirty-two elementary schools (kindergarten through grade 6), seven junior high schools (grades 7 and 8), and four high schools.

The Title VII project operates a Portuguese/English program in four classrooms in one school and a Spanish-English program in fifteen classrooms in six elementary schools and in seven classrooms in one junior high school. There are 660 students participating in the bilingual program. The Spanish bilingual project now operates in grades pre-kindergarten through 8, but not all participating elementary schools have a bilingual classroom at each grade level. Combination or ungraded classrooms are made up at each school, depending on the number of students requesting bilingual education. There are some single-level preschool and kindergarten classes, but all other classrooms are mixed-level or ungraded.

There is a very high mobility rate among the students at project schools. One principal estimated a changeover of 6.7 students each week; another said a 43% turnover in school population yearly was not unusual, not counting the families that leave for two or three months and then return to finish the school year.

Participation in the bilingual program is voluntary. The schools make the parents aware that bilingual classes are available. (All schools with bilingual classrooms have equivalent-grade-level regular classrooms.) Sometimes the school may recommend that a student be in a bilingual classroom, but the decision to enroll the student is up to the parents. The project tries to enroll equal numbers of English-dominant and Spanish-dominant students in each bilingual class. The classrooms observed were about two-thirds Spanish surnamed and more than half Spanish dominant.

Goals and/or Objectives

This is a full maintenance program and an enrichment rather than a remedial effort. The program goal is that all participating students become bilingual, biliterate (in English and either Spanish or Portuguese), and develop an appreciation of many cultures. The Spanish/English program is designed to achieve 50% English- and 50% Spanish-language use in the classroom by grade 3 or 4, although it is expected that the English-dominant students will take longer to become able to converse in Spanish than for the Spanish-dominant to learn English. A long-range goal for the District is to offer bilingual education from preschool through grade 12.

Project Staff

There are twenty-two full-time teachers in the project, eighteen of whom work in the Spanish component. All but seven of the teachers are of either Spanish or Portuguese descent, and all but one are bilingual. There are twenty-one classroom aides; all but one are bicultural and all are bilingual.

The project also employs four program assistants. The curriculum and materials development program assistant has been with the project for five years. She is of Portuguese descent and is bilingual (English/Portuguese). The program assistants for staff development and for evaluation have been with the project four years and are bilingual and bicultural (English/Spanish). The fourth program assistant is in charge of the bilingual project at the junior high level. This is her first year with the project. She is of non-Hispanic background but is bilingual (English/Spanish). All the program assistants except the one in the junior high program work out of the project's curriculum center located in School A.

Project 8 has had one director since it began as a pilot project in 1971. He is trilingual (English/Portuguese/Spanish) and bicultural.

The project also employs an outside evaluator on a part-time basis (forty days per school year). The present evaluator was new to the project in 1975-76 and is English-speaking and non-Hispanic. Outside consultants are hired to conduct inservice teacher-training seminars. In the past year, seven of these consultants, all of them bilingual, have served the project for a total of about sixteen hours.

Staff other than teachers and aides who work with students in the bilingual classrooms, but who are paid by the district, state, or federal funds other than Title VII, are school librarians, remedial Reading teachers, district psychologists, and speech and hearing therapists.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	4	4
Total number of questionnaires received	4	3
Highest earned college degree:		
No degree		2
Degree or diploma based on less than 4 years of work		1
B.A. or B.S.	4	
Teaching credential only		
M.A. or higher		
No response		
Type of state teaching credential held:		
Non-credentialed		3
Temporary, provisional, partial-fulfillment, or emergency		
Regular credential	4	
Bilingual-bicultural teaching credential		
No response		
Years of full-time teaching experience:		
Less than 1 year		1
1 year	1	
2 years		2
3 years		
4 years		
5-9 years	1	
10-19 years	2	
20-29 years		
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	1	2
1 year	1	
2 years		1
3 years	1	
4 years	1	
5 years		
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)	1	
6-15 quarter units (4-10 semester hours)	1	
16-30 quarter units (11-20 semester hours)	1	
More than 30 quarter units (more than 20 semester hrs.)		
No college training in bilingual-bicultural	1	3
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days	3	2
15-30 days	1	
More than 30 days		1
None		
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$220,137	
Other Federal and State	-0-	
Other (Private Foundation)	-0-	
TOTAL	$220,137	
• Per pupil		$310.93

In addition to the above, the following funds were designated for bilingual project schools:

School A		
Federal and State	$125,073	
Other	-0-	
TOTAL	$125,073	
• Per pupil		$432.78
• Total per pupil additional funds for bilingual project participants		$743.71

School B		
Federal and State	$143,311	
Other (District)	1,212	
TOTAL	$144,523	
• Per pupil		$326.55
• Total per pupil additional funds for bilingual project participants		$637.48

For the project's first three years of operation, Title VII funded all project activities. Since then the school district has absorbed some of the costs, paying for classroom aides with either Title I, regular district, or special state funds. Some project schools also receive Title I funds for designated disadvantaged students, and other schools also have state early childhood education funds.

Other Support

The project enjoys considerable non-financial support form other sources: the state, the local school district, and the community.

The state supports the project by providing special consultants, materials, and textbooks and has given informational guidance. The District has provided the technical assistance of a Reading consultant and specialists in curriculum development and human relations. It has also held teacher-training programs relevant to bilingual education and has made special resources and library and audiovisual materials available to the project. The District pays the teachers and one aide in each school and provides some instructional supplies.

The Project Director works closely with the District, State, and Federal Programs Coordinator and with the District Director of Research and Program Development.

CLASSROOM INFORMATION

Major Features of Classrooms Observed

- Ungraded classrooms. All classrooms above kindergarten level are ungraded or mixed level. The rationale behind the ungraded classrooms is partly pragmatic: when there are not enough students signed up for bilingual classes at any one grade level in a school, combination classrooms are formed. (This sometimes results in combinations of students of very different levels of maturity, such as when grades 2, 3, and 4 are combined.) Another reason for the ungraded classroom is to allow for flexibility in ability grouping for students who may be working at one grade level in the native language and at a lower one in the second language or for students who enter the program with little or no previous schooling in Spanish or English.

- Performance objectives. These have been prepared by the project staff by grade level for the following subjects: Reading and Language Arts in the first language, Mathematics, and multicultural Social Studies. In English as a Second Language and in Spanish as a Second Language, performance objectives are geared to length of time in the bilingual program, rather than actual grade level. The purpose of this is for the students to work at grade level in all cognitive areas while learning a second language.
- "Bilingual Management System." (a) The project has developed criterion-referenced tests tied to the grade-level objectives. (b) Pre- and post-mastery tests have been prepared and are to be given in fall and late spring. These consist of highlights from the criterion-referenced tests.

Impact Study Samples

The remainder of this description concerns classroom information obtained during site visits to a random sample of Impact Study classrooms. Of the ten classrooms in the five project schools with students in grades 2 through 6, four classrooms at four schools were selected at random to be included in the Impact Study. Two classrooms (with grade level range from 2 through 6) were then selected, again at random, for detailed observation.

Instructional Strategies for Ungraded Classrooms, Grade Levels 2, 3, and 4

Special Features of This Classroom

- This classroom is part of a school which operates on a year-round schedule, where students attend four quarters with three-week vacations between quarters.
- Various factors--the organization of the classrooms on a small-group and/or individualized basis with students with three different grade levels, many ages, and variations in language

ability represented--all contribute to a classroom environment where students move around the classroom freely, conversing with each other, with the aide, and the teacher.

- This class has nine second-graders, eleven third-graders, and twelve fourth-graders. The staff consists of one teacher and one aide.

English Language Instruction for Native-English Speakers

All students in the class receive Reading instruction in English. English Reading skills range from first- to fourth-grade levels. Students are grouped in five ability groups according to their grade level in Reading, regardless of their age or actual grade placement. Therefore, the groups are of mixed age and basic ability levels. For example, a fast-learning second-grader, an average third-grader, and a low and/or a non-English-dominant fourth-grader could all be together in the third-grade Reading group. Bilingual, English-dominant and Spanish-dominant students may be grouped together.

Students work on individual Reading contracts within their groups. Regrouping is an ongoing process in which students advance from one reader to the next at their own pace.

Five hours a week are devoted to Reading. The students work on an English-Reading contract for a week or two, then switch to a Spanish-Reading contract. Thus, not all students are working on any one language on a given day.

Language Arts instruction in English is taught for about three hours a week. General concepts are usually introduced to the whole class; then the English-dominant and bilingual students work in three groups, according to their assigned grade levels. Grammar, spelling, and punctuation are part of the regular Language Arts program. Creative writing, fiction, plays, and pupper skits are done by some students on an individualized basis. Spelling tests are given in an innovative method designed to deal with the problem of teaching spelling to students of diverse language abilities and grade levels. Each student is assigned to a spelling group

(A, B, C, or D), and during the test the teacher reads each work aloud prefaced by "A," "B," etc. Students write only the words for their assigned letter. Thus, each student is writing one-fourth of the time. Some words are in English and some are in Spanish.

The aide and teacher both instruct all but the highest and lowest English-Reading groups. The most advanced readers are English dominant and are instructed principally by the teacher; the slowest readers are instructed by both teacher and aide and also receive help from student tutors and from the school Reading specialist.

The texts are from the Macmillan Reading series (Enchanted Gates, Better Than Gold, etc.).

English Language Instruction for Native-Spanish Speakers

There are eight students in this class of thirty-two who are considered Spanish-dominant. These students work on English as a Second Language (ESL) during the regular daily English Language Arts period. Spanish is used freely by instructors and students during ESL lessons. Students work independently with the Language Master and also drill on pronunciation, sentence patterns, sentence completion, and vocabulary with the teacher and/or aide and with student tutors. Instruction is usually individualized.

Spanish Language Instruction for Native-Spanish Speakers

There are four ability groups in Spanish Reading, each made up of students of various actual grade levels and different language dominance. Groups are determined by performance on classroom tests and work. The highest Spanish-Reading group, for example, has ten students: five entered this class already bilingual, four are Spanish-dominant, and one is English-dominant. Seven of the students are third-graders and three are fourth-graders. Students are regrouped bimonthly.

Spanish Language Arts is presented to the whole class, followed by independent work periods, and two days a week the students work in small groups. Total instructional time is about three hours a week (not counting time for Reading). Entire class instruction covers punctuation, grammar, spelling, and other writing skills, as well as games, dialogues, and choral Reading. Creative writing assignments are given bilingually, and the students write in the language of their choice.

There are three ability groups for Language Arts. The most advanced group works on poetry, skits, and oral expression; the middle group covers the same content areas on an easier level. The third group is discussed below.

The textbooks used are Programa de Lengua Española (Santillla, Madrid); Lenguaje (Ediciones S.M., Educación General Básica, Madrid); Preparándose Para Leer, and Monovisual (Rickville, Maryland)--the last used by only a few students.

Spanish Language Instruction for Native-English Speakers

English-dominant students participate in the whole-class Spanish Language Arts lessons and do individualized work on their own levels. The third ability group for Spanish language is made up of nine of the class's twelve English-dominant students, plus one bilingual second-grader. This group is beginning written work in Spanish.

The English-dominant students in third and fourth grades have started reading in Spanish and are mixed in with the Spanish-dominant students in the various ability groups. The English-dominant second-graders have not been introduced formally to Spanish Reading but are working on oral and beginning written skills

The teacher and aide would share the teaching in Spanish since both are bilingual; however, the aide has been with the class only part of this school year (1975-76) and lacks extensive teaching experience.

Although English and Spanish are usually spoken freely in this class regardless of subject matter, there are occasional periods when language usage is restricted to one language or the other. Most often this occurs during Spanish-language lessons when only Spanish is allowed.

Mathematics Instruction

All Mathematics is taught by individual contract. Students are grouped for instruction according to the skill area being studied, and these groups are shifted weekly as content areas are covered. Mathematics skills in this class range from second- to fourth-grade level.

English is the usual language of instruction for most of the class, although Spanish may be used freely. Also, the Spanish-dominant students are instructed in Spanish and use a Spanish-language Mathematics text. The teacher, aide, and sometimes a volunteer help with Mathematics instruction, which is given for five hours a week.

The Mathematics textbook in English is *Elementary School Math* (Addison-Wesley), and in Spanish, *Matemática Para La Educación Primaria* (Fondo Educativa Ineramericano, S.A., Addison-Wesley). Games, puzzles, flashcards, and other manipulatives are also used, as well as records, films, and the overhead projector.

Cultural Component

The multicultural instruction in this classroom is ongoing and pervasive. The Hispanic cultural element is included in all aspects of daily work, and social studies units deal with countries all over the world. This classroom is crowded with artwork, posters, schoolwork, charts, etc., in English, Spanish, and other languages. Displays observed concerned Russia, Mexico, Africa, China, Hawaii, and the continental United States.

Instructional Strategies for Ungraded Classoooms, Grade Levels 4, 5, and 6

Special Features of This Classroom

- This class is made up of nine fourth-graders, ten fifth-graders, and twelve sixth-graders.
- The classroom is staffed with a teacher, an aide, and a full-time student-teacher. A community volunteer comes in four hours a week. Students also go to other classroom teachers for instruction in some subject areas.

English Language Instruction for Native-English Speakers

About fourteen students (half of the class) are English dominant. Students are grouped for Reading by ability as perceived by the teacher after the first few weeks of school. There are three Reading groups, and they are rarely regrouped. The students are reading from third- to above-sixth-grade level.

Instruction is individualized. It was observed during one Reading period that the volunteer and aide were working one-to-one with students, the student teacher was working with a small group, and the teacher was circulating, helping, and keeping the rest of the class busy with individual projects. Both Spanish and English Reading were going on during the same class period.

Students spend about five hours a week on Reading in English, which includes structural analysis, phonics (for the lower groups), comprehension, some library work, as well as storytelling and play-reading.

Language Arts is taught in two groups, one consisting of the same English-dominant students who are in the highest Reading group and the other made up of the bilingual students and the rest of the English-dominant students. About one hour a week is devoted to written English Language Arts and one hour to such oral expression as class meetings, which are conducted bilingually. (This time does not include the periods for English as a Second Language.)

A variety of textbooks is used, depending on Reading group: the Harper & Row, Scott Foresman, and Macmillan series; Scholastic and SRA Reading Kits.

English Language Instruction for Native-Spanish Speakers

Eleven students (out of twenty-nine) from this class receive instruction in English as a Second Language. The more advanced group is instructed by the classroom teacher and her student teacher for from two to four hours a week. As students improve in reading English, they spend more time with the regular English Reading curriculum. They work on Reading and library skills as well as on oral vocabulary building and oral comprehension. Instruction is always in English. The textbook is the Lippincott level 2 reader.

The beginning ESL group goes to another classroom teacher aide for two hours' instruction a week. They work mainly on oral drills in pronunciation, sentence patterns, and sentence completion.

Spanish Language Instruction for Native-Spanish Speakers

Spanish Reading is mainly taught on an individualized basis, but students are grouped about once a week for a lesson. There are essentially two ability groups, whose composition is flexible, based on need. One student who has no schooling prior to joining this class is beginning to read in both English and Spanish. She concentrates on phonics, spelling, and grammar and is instructed by the aide and the volunteer. The intermediate group works with the student teacher and the regular teacher, as does the more advanced group. Spelling, grammar, comprehension, and library skills are included in the reading instruction.

Spanish Language Arts is taught only to the Spanish-dominant students, while the others study Spanish as a Second Language. Over six hours a week are devoted to writing skills and oral stories and poetry. (Class meetings are bilingual, as mentioned previously, and creative writing assignments are written in the language of the student's preference.

The Senda Series from Santillana (Madrid) is the principal Spanish reading textbook, and Lenguaje from the same publisher is used for Spanish language arts. The teacher also relies heavily on audiovisual aids of all sorts, as well as on games, puzzles, flashcards, etc.

Spanish Language Instruction for Native-English Speakers

There are two ability groups for Spanish as a Second Language instruction, one of which goes for two hours a week to another classroom teacher. The advanced group is taught by the regular teacher. A traditional foreign language instructional technique is used, following a U.S.-published seventh-grade Spanish textbook. The students learn grammar and vocabulary and do writing exercises and oral dialogues. The beginning Spanish group does mainly oral work. Spanish as a Second Language is taught completely in Spanish, with little or no English allowed.

Mathematics Instruction

Mathematics is completely individualized by a system of contracts. Students take pretests, receive task cards on the basis of their skill needs, complete work in a variety of textbooks and instructional materials, and then take posttests. The teacher and aide move around the class, helping where needed. Spanish and English are used, but English is the prevalent language for Mathematics instruction. The Mathematics curriculum is based on a locally developed "Math for Survival" program which emphasized computational skills. Thus, although explanations are made in the students's dominant language, the same computation problems are worked by everyone.

Cultural Component

Social Studies is taught for three hours a week on alternate days with Science. Social Studies is multicultural and is taught bilingually. However, the teacher considers the bilingual/bicultural experiences to be part of the entire curriculum of her class.

Parent and Community Involvement

Both teachers in the intensive sample had parent and/or community volunteers in the classroom at the time of the observation. Both also report some parent participation in field trips and class parties. The The main contact with parents for both has been through parent-teacher conferences. Both teachers report seeing each parent at least once a year, and one estimated that she sees every parent about two or three times per year. Parents also attend the school's monthly bilingual parent meeting.

Community interest is sustained through a project newsletter as well as occasional newspaper and radio releases.

PROJECT 9

PROJECT INFORMATION

Project Context and Target Population

During the 1975-76 school year, Project 9 served 300 students in kindergarten through grade 6. These students were in ten project classrooms at four integrated schools where the student body was 35% black, 7% Asian, 7% Hispanic, and 50% white non-Hispanic. In project classrooms, the concentration of Hispanic students was higher than in the total school population, averaging about 45%.

Because of integration and proximity to a major university, the parents of project students include semiskilled workers and other laborers as well as professional persons working or studying at the university. These families live in mixed single-unit and multiple-unit dwelling, and their average annual income was estimated by two principals to range between $4,000 and $20,000. These same principals also estimated that a 10% turnover in student body each year was about average for their schools.

Goals and/or Objectives

Project 9 is one of four that form and are funded by a consortium. The goals and objectives of these projects are therefore quite similar and include the following:

- To increase Reading and Mathematics skill levels using English and Spanish as languages of instruction
- To instill in project students a feeling of pride in their culture through bicultural and multicultural activities
- To help project participants and their parents develop a better understanding of the educational system by improving communication between the home and the school
- To provide a site where observers may watch a maintenance-type bilingual program in action

- To avoid costly duplication by participating with other consortium projects in staff development, curriculum development, media production, testing and evaluation, dissemination, and community involvement activities

Project Staff

During the 1975-76 school year, ten full-time teachers and ten part-time aides (80% time) received support services from three full-time, Title I remedial Reading teachers; one full-time, Title VII master-teacher; one full-time school/community liaison; and one project director who devoted two-fifths of his time to Project 9 and three-fifths of his time to his duties as director of the consortium he helped found in 1971. In 1975, the project master-teacher had been with the project for two years, and the school/community liaison had been with the project for four years, while eight of the aides and nine of the teachers had been with the project for three or more years.

The services of a full-time media center staff and a full-time project evaluator were also shared by all consortium sites. All project staff funded by Title VII are bilingual (Spanish-English).

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	5	5
Total number of questionnaires received	4	3
Highest earned college degree:		
No degree		2
Degree or diploma based on less than 4 years of work		1
B.A. or B.S.		
Teaching credential only	1	
M.A. or higher	3	
No response		
Type of state teaching credential held:		
Non-credentialed		
Temporary, provisional, partial-fulfillment, or emergency		
Regular credential	4	
Bilingual-bicultural teaching credential		
No response		
Years of full-time teaching experience:		
Less than 1 year		
1 year		
2 years		1
3 years		
4 years	1	1
5-9 years	2	1
10-19 years		
20-29 years	1	
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year		1
1 year		
2 years		
3 years		
4 years	1	1
5 years	3	1
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		
6-15 quarter units (4-10 semester hours)		1
16-30 quarter units (11-20 semester hours)	2	
More than 30 quarter units (more than 20 semester hrs.)	1	
No college training in bilingual-bicultural	1	2
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days		1
15-30 days	1	
More than 30 days	3	2
None		
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$85,000	
Other Federal and State	-0-	
Other (Private Foundation)	-0-	
TOTAL	$85,000	
• Per pupil		$283.00

In addition to the above, the following funds were designated for bilingual project schools:

Federal and State	(information not available)	
Other	-0-	
TOTAL	(information not available)	
• Per pupil		$359.32
• Total per pupil additional funds for bilingual project participants		$642.32

The Title VII grant was used for aides' salaries, materials, inservice training, and field trips. ESEA Title I funds paid salaries for three remedial Reading teachers for inservice programs for follow-through and experimental schools programs in which bilingual staff members participated. Schools also benefited from state early childhood and other state funds used for a resource teacher and supplementary instrument materials. The local district paid the salaries of all project teachers, provided one project with office space, and made available school site support services such as special education, counseling, and library facilities.

The average annual cost of educating an elementary level student in the District in 1975-76 was $1,772. This figure did not include the supplementary federal and state funding listed above.

CLASSROOM INFORMATION

Impact Study Samples

The information included in this description is based on interviews with project staff and on a visit to one of the project's two second- and third-grade combination classes and its only sixth-grade classroom.

Instructional Strategies for Grades 2 and 3

Major Features

- Many students stay in this class for two years as second- and third-graders. To avoid repetition and to provide continuity of instruction, the teacher makes a point of planning her activities in two-year blocks.
- During the 1975-76 school year, the teacher enjoyed the help of two full-time student teachers, one full-time aide, and one part-time student volunteer from the local university.
- Most instruction takes place in small groups in which second- and third-grade students of similar ability work together.
- Language and Mathematics instruction often includes the use of drills that are chanted, sung, written on the blackboard, or read from flashcards.

English Language Instruction for Native-English Speakers

The teacher uses informal observation of students' ability and motivation to form groups for English language instruction. Each week, all English-dominant students spend two hours on grammar, spelling, and writing activities; four hours on Reading comprehension activities; and one additional hour working in the library. Seven high-ability students use all this time to work on individualized contracts developed for high-potential students by the District. These students receive a new contract each month. The contract usually includes reading from classroom paper-back books, alphabetizing words, and writing compositions on topics such as "What would you do if . . . ?"

Five students in a medium-ability group work with the teacher and the aide on Reading assignments from Open Highways series materials. After group discussions of these assignments, the students perform grammar and composition activities suggested in the series' workbooks.

Ten students in two lower groups work with the teacher and the aide on locally developed phonics activities as well as on a visual approach to Reading. They divide words into syllables; categorize words into long and short sounds; and learn about initial sounds, blends, and digraphs. The majority of these students use Macmillan readers and workbooks. However, three of these students are reading in first-grade Bank Street readers.

Every Friday, all students write a composition which is often related to such special holidays as Cinco de Mayo or Valentine's Day.

English Language Instruction for Native-Spanish Speakers

The five Spanish-dominant students in this classroom attend school irregularly, and the teacher feels they retain little of what they learn. These students speak English without an accent but are unable to read or write in English. The teacher spends about 2 1/2 hours a week with these five students working on such perceptual skills as matching words, picking letters that are different or the same, and learning the names of colors. By early spring of the 1975-76 school year, these students were able to write their name and had started reading in Macmillan preprimers.

One student from Mexico who has been in the class a very short time and knows no English is working by himself in an English as a Second Language workbook entitled The Magic of English. This workbook is designed for students who can read in Spanish and leads the student through the names of colors, numbers, and shapes using pictures and simple writing exercises. To check on English comprehension the teacher uses Spanish frequently with all her native-Spanish speakers.

Spanish Language Instruction for Native-Spanish Speakers

Six Spanish-dominant students spend three hours a week on grammar, writing, and spelling activities; two hours a week on Spanish Reading and comprehension activities; and about one hour a week selecting and reading Spanish-language books in the library. Typical activities for these students include reading from Santillana textbooks; working with vocabulary flashcards related to the Santillana stories; and listening to Spanish-language tapes of modern and traditional fables while following the words and pictures of the fables in an accompanying storybook. The aide is primarily responsible for this group of students.

One advanced student who arrived from Mexico in the middle of the year works independently for seven hours a week on contracts based on the Reading, writing, and grammar assignments in the SENDA II workbook.

Spanish Language Instruction for Native-English Speakers

While two student teachers are helping in the classroom, there were two Spanish as a Second Language groups. However, when the student teachers left, these groups were combined and taught by the classroom teacher. Whether taught by the classroom teacher or by student teachers, Spanish as a Second Language instruction is based on audio-lingual principles, writing and drawing exercises, and Spanish-language games and songs. Students memorize dialogues; perform sentence pattern drills; draw pictures to show they understand the meaning of Spanish words; sing such songs as "Las Mananitas," "Los Elefantes," and "La Mer Estaba Serena"; and play games including La Loteria and El Floron. When the groups were combined, the more advanced students often modeled correct answers for those students who had had less exposure to Spanish. By early spring, two of the seventeen students in the Spanish as a Second Language group were able to join the Spanish as a First Language group for beginning Reading activities.

Mathematics Instruction

All the students spend about 2 1/2 hours a week on Mathematics instruction. Ten students grouped by the teacher according to their higher

Mathematics ability and motivation work independently and with the teacher on addition, subtraction, multiplication, division, and fraction problems. Fourteen students in two lower groups work independently and under the supervision of student teachers or the classroom aide on addition and subtraction problems. Students in all three of these groups learn Mathematics in English using Wirtz's Individualized Computation and Houghton Mifflin's Modern School Mathematics.

Six Spanish-language students work independently and with the teacher and the aide using Sanguinetti's Programa de Mathematicas: Patrones y Estructura. This Spanish-language textbook stresses such basic concepts as "what comes before" and "what comes after" and introduces students to simple and complex addition problems.

In addition to working with their textbooks, all students participate in blackboard and flashcard computation drills and use reinforcement worksheets developed by the teacher to help them internalize such concepts as "borrowing" and "carrying."

Cultural Component

The teacher estimates that she and her aide spend about three hours a week on cultural awareness activities. These activities are usually spontaneous and are related to holidays, Social Studies discussions, or explanations of new Spanish words. For example, during a Spanish vocabulary lesson, the teacher might explain that codo can mean "stingy" in Puerto Rico, though not in parts of Mexico. To celebrate Cinco de Mayo, students in this class invited the whole school to a one-hour program of Mexican songs, poems, dances, and recitations. The teacher frequently reads books about famous black Americans such as Malcolm X or Martin Luther King to the class. She then asks the students to write a few sentences on what they learned from the reading.

Instructional Strategies for Grade 6

Major Features

- The aide and the teacher in this classroom have been working as a team for four years.
- The instructor's soft voice, slow movements, and simply presented instructions contribute to a quiet, relaxed classroom atmosphere.
- Students work on individualized Reading and Mathematics assignments during most of the day.
- No separate English as a Second Language program is used in this classroom because these sixth-grade students all speak English.

English Language Instruction for Native-English and Native-Spanish Speakers

All students spend about four hours a week on individualized Reading assignments. They read at least two books a month which they are free to select from classroom and library shelves or to bring in from home. After reading each book, the student may choose to summarize the story, report more about the author, or add an original chapter to the book. Three out of four of the assignments he chooses must be presented in the form of a written report. The fourth assignment may be presented orally during a conference with the teacher or the aide.

In addition to the four hours a week devoted to Reading assignments, students also spend about three hours a week working alone and as a large group on capitalization, punctuation, spelling, grammar, and writing activities. During large group sessions, the class might work through lessons in Kottmeyer spellers or discuss weekly composition topics. Favorite topics during the 1975-76 school year include "There Was a Time I Was Almost Killed" and writing a story with the sentence, "As far as I know, it's still out there buried under the snow."

Spanish Language Instruction for Native-Spanish and Native-English Speakers

Students in this class have been divided into three groups according to their scores on the project-administered Bilingual Syntax Measure. Although they are not all native-Spanish speakers, the majority of the students in the most advanced group hear some Spanish spoken at home. For approximately 3 1/2 hours a week these students read and answer grammar and comprehension questions from the Santillana and SENDA series materials. The classroom aide is primarily responsible for these students and encourages them to use only Spanish during this part of the day.

The lessons for two less advanced groups are based on plans presented in Aprendamos Español. Students in both these groups spend about forty-five minutes a week reciting pattern drills and dialogues and memorizing simple vocabulary words including the names of the days of the week, of fruits, and of colors. In the spring, the students from the more advanced of these two groups are ready to read in the beginning Santillana series readers.

In addition to the above activities, all students in the class learn five new Spanish spelling words each week.

Mathematics Instruction

At the beginning of the year and once or twice a month thereafter, the teacher demonstrates different ways of doing basic Mathematics operations. He then tells his students the number of pages he expects them to have completed by the end of the month in their Addison-Wesley textbooks or in a locally developed workbook entitled Keys to Algebra. Students then spend about five hours a week working toward these goals. Included in this time are daily, five-minute drills on addition, subtraction, multiplication, division, fractions, percents, and algebra facts. The teacher and the aide help individual students on an as-needed basis and use English almost exclusively.

Cultural Component

The classroom teacher estimates that his students spend about 2 1/2 hours a week on Cultural Awareness activities. This year, they cooked beans with "chorizo," studied Latin cultures mentioned in their state-adopted social studies textbook, Ancient Civilizations, sang such songs as "Celito Lindo" and "Yo soy chicano," and presented for the entire school a Cinco de Mayo pageant complete with dancing, singing, and dramatizations of Mexican folktales.

Parent and Community Involvement

Teachers interviewed indicated varying degrees of parental involvement. One teacher had had one parent volunteer in the classroom once during the 1975-76 school year. Another teacher held conferences with all parents twice a year, and a third teacher made weekly contact with all parents to determine each child's progress during the past week and each child's goals for the coming week.

A project advisory committee, composed of seventeen parents, meets as often as once a month to review proposals, discuss program results, and make recommendations for future project activities.

PROJECT 10

PROJECT INFORMATION

Project Context and Target Population

Project 10 began in 1972. There are seven elementary schools in the District, two middle schools, and one high school. Only School A has participants in a bilingual project.

The District is located in a city of approximately 15,000 people in the southeast corner of the state directly across the border from a considerably larger city in Mexico. The nearest large U.S. city is about one hundred miles away. The countryside around the city is high desert. There is some ranching and farming, but the economic base is in mining and smelting. There is a large copper smelter in the city, and it is estimated that 20% of the city's labor force is employed there.

School A has fourteen bilingual classrooms with 349 students in kindergarten through grade 4. Admission to the Project is determined either by residence in the school's attendance area or by parental request. All students in the attendance area automatically enter the bilingual project. If a parent does not wish his/her child to be in bilingual classes, he/she may request a transfer to another school, and, conversely, a parent from another neighborhood may request that his/her child attend School A.

The Project hopes to expand in 1976-77 to include fifth grade, which would make the school entirely bilingual. However, there seems to be no interest in the District in enlarging the bilingual project beyond this school.

Approximately 90% of the population of the city is of Mexican descent; the remainder is predominantly white non-Hispanic. In the bilingual school, about 98% are of Mexican descent. The school district population is quite stable, but the bilingual project school has a higher mobility rate than the District average. This is due to its location in the neighborhood where most new arrivals from Mexico first settle. Many families soon relocate in other neighborhoods or return to Mexico.

The families in the neighborhoods around the four schools visited are mostly employed as semiskilled laborers, and the family income averages between $2,000 and $8,000 per year. Some earn much higher salaries, but families are often large, and over half the students in these schools are enrolled in the free lunch program. At the bilingual school, 240 of the 380 total enrollment receive free lunch.

Goals and/or Objectives

The goals of the Project are influenced by the surrounding educational system. Since there is only one school in the District with a bilingual program, these students go to all-English middle and high schools when they finish fifth grade. This fact, plus the desire of many Spanish-speaking parents (especially those who have recently arrived from Mexico) that their children learn English quickly and to the exclusion of Spanish, has caused the project to develop as a "transitional" rather than a full "maintenance" program. One stated goal of the program is for students to learn both English and Spanish in the standard forms. Although Spanish Reading is emphasized in kindergarten through grade 2. English is stressed more after second grade. A bicultural program, however, is continuous through grades four and five, and Spanish is the principal language of this component. Other major goals are parent and community involvement and the development of positive self-concept through full acceptance of the student's home language and culture.

Project Staff

The full-time bilingual project staff consists of the Project Director, thirteen classroom teachers, eleven classroom aides, a "resource teacher" (who serves as a materials and curriculum specialist), and a school/community liaison person. Part-time staff consists of one classroom teacher (who is also acting principal of the school), an evaluator, and three paid "volunteers" who work with teachers and students. (These people volunteered their services the first year of the project but would not have been able to continue because of financial need, so it was arranged to keep them on with salaries.)

The Project Director's position has been full time only since January 1976. Up to that time and for the past 2 1/2 years, he also served as the bilingual school principal. (The tasks of principal are now performed by the half-time vice principal.) The Resource Center teacher has been with the project for three years, and the school/community liaison has been there four years, since the start of the project.

The Director, all the aides, the resource teacher, and ten of the classroom teachers are bilingual and bicultural. One teacher who is of non-Hispanic descent is bilingual; three others are English dominant.

Staff other than teachers and aides who work with the students but who are paid from state, district, and federal funds other than Title VII are the District psychologists, the half-day adaptive education teacher and aide, the full-time remedial Reading teacher and aide, a speech and hearing therapist, and the part-time school nurse. In addition, the Program has employed two professional consultants this year to give inservice teacher workshops.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	6	6
Total number of questionnaires received	6	6
Highest earned college degree:		
No degree		6
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	4	
Teaching credential only		
M.A. or higher	2	
No response		
Type of state teaching credential held:		
Non-credentialed		5
Temporary, provisional, partial-fulfillment, or emergency		
Regular credential	6	
Bilingual-bicultural teaching credential		1
No response		
Years of full-time teaching experience:		
Less than 1 year		
1 year		
2 years	1	1
3 years		
4 years	1	1
5-9 years	2	2
10-19 years	2	
20-29 years		
30 or more years		
No response		2

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	2	
1 year		
2 years	2	1
3 years	2	1
4 years		3
5 years		
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)	1	2
6-15 quarter units (4-10 semester hours)	5	2
16-30 quarter units (11-20 semester hours)		1
More than 30 quarter units (more than 20 semester hrs.)		1
No college training in bilingual-bicultural		
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days	3	1
15-30 days	2	1
More than 30 days	1	4
None		
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project.

Title VII	$120,000	
Other Federal and State	-0-	
Other (Private Foundation)	-0-	
TOTAL	$120,000	
• Per pupil		$343.84

In addition to the above, the following funds were designated for bilingual project schools:

Federal and State	$ 29,133	
Other	-0-	
TOTAL	$ 29,133	
• Per pupil		$ 76.66
• Total per pupil additional funds for bilingual project participants		$420.50

Other Support

There is little state or district support for the bilingual project. The District pays teachers' salaries and the salaries of three aides, and grants release time to teachers to attend inservice training. The inservice workshops in bilingual education are paid for from Title VII project funds. The state gives some informational guidance to the project.

CLASSROOM INFORMATION

Major Features of Classrooms Observed

- An important feature of Project 10 is the Resource Center, which is located in a building adjacent to the school. The Center is staffed by a full-time resource teacher and an aide. Shelving and work tables were recently installed, and the Center went into full operation this year (1975-76). Here the curriculum for the bilingual project is coordinated, and new materials are organized and/or produced and disseminated to the classrooms. The resource teacher and her aide help the teachers to develop new teaching units, especially in the bicultural area. They also instruct teachers in the use of audiovisual equipment and in preparation of teaching materials. The Center also serves as a storage place and library for materials which may be checked out by teachers. Students do not use the Center facilities directly.
- Classrooms are organized on a "learning centers" model. Teachers and aides work with one small group of students at a time from three to five tables or "centers" in the classroom. At least one group is always working independently, and students rotate from center to center about every twenty or thirty minutes. In some cases all centers are working on one content area (e.g., Mathematics); in other cases several subjects are going at once.
- Fourth-grade teachers work as a team, one giving the English as a Second Language (ESL) classes and another presenting the cultural components.

- Materials: Spanish Reading series--Santillana Series, (Madrid, Spain); BOLAR (Bilingual Oral Language and Reading Program), Southwest Educational Labs
  Mathematics--*Elementary School Mathematics* (Addison-Wesley), plus supplementary textbooks.
  English Reading and Language Arts--see notes on each classroom.

Impact Study Samples

The remainder of this description concerns classroom information obtained during site visits to a random sample of Bilingual Impact Study classrooms. Of the nine project classrooms in the target range of grades 2 through 6, six (two at grade levels 2, 3, and 4) were selected at random to be included in the Impact Study. One classroom at each of these grade levels was then selected, again at random, for detailed observation.

Instructional Strategies for Grade 2

English Language Instruction for Native-Spanish Speakers

There were no students in this second-grade class whose first language was English; thus, all English instruction in Language Arts and Reading is in a sense English as a Second Language. The Project proposes that instruction in kindergarten and first grade be about 65% Spanish but that instruction should be 50% English and 50% Spanish by second grade.

English and Spanish Reading are taught alternately in two-week blocks for a period of an hour a day. Students are divided into four ability groups for Reading. English Language Arts is taught separately for about two hours weekly.

Six students in this class were chosen to attend the school's Reading lab for two hours a week. They were selected because the teacher felt they had good potential to improve in Reading, although they began the school year reading below grade level. They are not the poorest readers in the class.

During the periods of oral work in English, students practice pronunciation and do informal sentence pattern practice. The use of Spainsh is freely allowed in the classroom at all times.

The major English Reading textbook is Alpha One (New Dimensions in Education, Inc., New York). A bilingual textbook is also used--All By Myself--Reading (in English and Spanish), Southwest Educational Development Labs. The teacher employs movies, cassette tapes, filmstrips, and records as audiovisual aids in English Reading and Language Arts.

Spanish Language Instruction for Native-Spanish Speakers

Since all the students in this class have Spanish as their home language, there is no Spanish as a Second Language instruction.

Students are grouped by ability for Spanish Reading instruction. The same organization is used as for English language instruction. Writing skills, such as capitalization and punctuation, are incorporated into the

Reading period. The most advanced Reading group also does some writing and spelling in Spanish. About an hour and a half a week is devoted to whole-class oral Spanish language development with such activities as poetry, storytelling, plays, and sharing.

The teacher supplements the Spanish Reading texts (see Major Features) with locally developed exercise sheets, games, flash cards. Audiovisual aids include tape recordings made by the students, as well as commercially made records, filmstrips, and cassettes.

Mathematics Instruction

In the second-grade classroom observed, Mathematics is taught bilingually, both English and Spanish being used freely. During the observation, English was used slightly more than half the time. One hour a day is devoted to Mathematics instruction, and about half this time is for instruction and half for independent work.

Students are grouped by ability and regrouped or reassigned approximately once a month on the basis of need and ability in the skill being studied.

The teacher supplements the English language Mathematics textbook with both commercially and locally developed exercise sheets, games, and flash cards.

Cultural Component

Hispanic culture is taught mainly in connection with events and holidays. When the occasions arise, about 2 1/2 hours a week are spent on these units. Instruction at these times is in Spanish, but the students are allowed to participate freely in either English or Spainsh. Some activities such as art projects, games, music, and lessons about legends, geography, history, and famous people and dates are presented to the whole class by either the teacher or her aide. Other activities are based at the learning centers, where small groups work on projects.

Instructional Strategies for Grade 3

English Language Instruction for Native-Spanish Speakers

As is typical in the project, this class is nearly homogeneous in language proficiency. There are only two native-English speakers in the classroom, and they are treated like the rest of the group in terms of language instruction.

All Reading and Language Arts instruction takes place in small groups. The students are grouped by ability in Reading; groups are fairly flexible with some student being reassigned about once a month. This teacher teams with another third-grade teacher for Reading. The two highest Reading groups from this class go next door for Reading, and this teacher instructs the slower readers from both classes. (The teacher switched groups at the half-year.)

The Reading period is one hour each day, and an additional fifty minutes is devoted to English Language Arts. Language Arts is mainly written, with very little oral wrok.

The six slowest readers in the class were selected to attend a Reading lab for two hours a week in addition to their classroom Reading work.

English Reading and Language Arts are taught almost totally in English. The teacher occasionally repeats an explanation in Spanish, but the students are encouraged to respond only in English during this period. Sentence pattern and sentence completion drills and dialogues are practiced. The teacher often uses pictures to facilitate communication. The English Language Arts period (which is the English as a Second Language period) is taught mainly by the teacher, who is English dominant. The Reading period "centers" are taught by both the aide and the teacher.

The principal Reading textbooks are from the Ginn Elementary English series. A variety of materials is used for Language Arts and English as a Second Language, including English Self-Taught (Regents Press), Phonics We Use (Rand McNally), and the Duso Stories kits and the SRA Language Involvement series, and I Learn to Write (Bobbs Merrill). In addition, the BOLAR series is used. (See Major Features.) Audiovisual aids used are tape recorders, records, film strips and movies, as well as flash cards, games, and charts and pictures.

Spanish Language Instruction for Native-Spanish Speakers

There are three ability groups for Spanish Reading. The two English-dominant students are included in two slower groups, which, however, include about half the students in the class. The classroom teacher instructs the fastest and slowest groups, and the aide teaches the middle group. Students rarely change groups. Whole-class instruction in Spanish Language Arts (such as dictation, songs, poetry reading) is done by the Spanish-dominant aide.

Spanish Reading is given less instructional time in third grade than in second. It is taught on Mondays and Wednesdays for a total of one hour a week. An additional 2 to 2 1/2 hours a week are spent on Spanish Language Arts. As with English Language Arts, very little time is spent on the oral aspects of Language Arts in Spanish.

The Spanish Reading textbook used is Mira y Lee from the Santillana series. The BOLAR textbook, workbooks, and exercise sheets are also used. The teacher also uses some games, puzzles, and flash cards but usually does not use any audiovisual aids except the tape recorder.

Mathematics Instruction

An attempt is made in third grade to teach Mathematics only in English. However, students may speak Spanish if they wish, and during the observation it was noted that, while the teacher used only English during Mathematics period, the aide used Spanish about half the time.

The students work in small groups at three learning centers, but they are not grouped by ability in Mathematics. About 7 1/2 hours a week are devoted to Mathematics. Four days a week the students move around the three centers, receiving twenty minutes of instruction and thirty minutes of reinforcement. Then they go to the classroom next door for another twenty minutes of reinforcement. They also spend ten minutes three days a week on Mathematics drill, and once a week they have a review and a test.

The Addison-Wesley Elementary School Mathematics textbook is not used often, according to the teacher, who prefers to prepare dittos and exercise sheets. Charts, flash cards, and other manipulative materials are also used for Mathematics instruction.

Cultural Component

Mexican culture is taught as a separate class period for half an hour a week. The classroom aide prepares and presents these cultural units, in which vocabulary development (in Spanish), dictation, and discussions form a large part of each lesson. The students are encouraged to speak only Spanish during this time. Most of the students' writing assignments in Spanish are in connection with this cultural component.

Students work in their learning center groups for the cultural heritage period, but they are not grouped by ability. Mexican culture is stressed more than North American; and lessons have involved cooking, celebrating holidays, and studying legends, geography, and the history and music of Mexico.

Instructional Strategies for Grade 4

English Language Instruction for Native-Spanish Speakers

The fourth grade class observed was made up of twenty-six students, all of whom have learned English as their second language. All but three are now considered to be bilingual. There are three ability groups for Reading, and one of these groups also receives remedial instruction from a Reading specialist. Students were observed to be working at an individualized pace within these ability groups. They may be reassigned to groups as often as once a month, depending on achievement.

One and a half hours a week are spent on Reading by two of the Reading groups; the third group spends a total of four hours a week, including time in the remedial Reading class.

English as a Second Language is taught by another fourth grade teacher, who comes in for thirty minutes each day. This teacher does not speak Spanish fluently, and this period is taught only in English.

This subject is taught to the class as a whole and includes work in choral reading, poetry, literature, and role-playing. The teacher uses many teacher-produced materials plus the Language Master and story records.

The classroom teacher also teaches Language Arts, so total weekly time devoted to written and oral English (apart from Reading) is over five hours.

The principal Reading and Lanugage Arts textbooks are: Exploring in English (Laidlaw); Specific Reading Skills (Barnell Loft); Scott Foresman's basal Reading series; Phonics We Use (Rand McNally); and the SRA Reading Lab kits. In addition the teacher employs charts, games, flash cards, and other locally developed games, puzzles, and manipulative materials. A great variety of audiovisual aids are also used.

Spanish Language Instruction for Native-Spanish Speakers

The project goal is that by fourth grade instruction should be 85% in English, and there is no formal Spanish Reading or Language Arts instruction at this level. Occasionally, the class will act out a play or read poetry in Spanish. (See Cultural Component.)

Mathematics Instruction

Instruction in Mathematics is given bilingually, the teacher and aide using whichever language best communicates the concepts. Some students are still learning the Mathematics vocabulary in English.

Mathematics is taught for forty-five minutes daily, or 3 3/4 hours a week. Students work in three ability groups and are rarely regrouped, except for occasional individual changes based on ability. Instruction is given for a few minutes daily by the teacher and aide, and then students work independently the rest of the period.

The teacher prefers an old Laidlaw Mathematics series to the assigned textbook and uses it, as well as self-made exercise sheets, charts, and games and commercial flash cards and other manipulative materials, as supplements. She also has used records, filmstrips, the opaque projector, and movies in teaching Mathematics.

Cultural Component

The cultural component in this class is the major Spanish-language period as well. Another fourth-grade teacher comes into the class for about thirty minutes three times a week and offers a series of units on the cultures of ancient Mexico. (This is in addition to the regular class Social Studies period, where cultures of the U.S. Southwest have been studied.) Spanish is the language of this period, although students are allowed to speak English when absolutely necessary.

The cultural component is taught as an entire class activity. These units have included such topics as Art, cooking, legends, Geography, History, Music, Mathematics, and Science. The students discuss what they are learning, write (in Spanish), and do other self-directed projects related to the units. (Unfortunately, no observations were made of the cultural component. This information was obtained from teacher interviews and examination of teaching materials and student projects.)

Although this cultural component makes the main curricular distinction between the bilingual and regular classrooms, the free use and acceptance of Spanish throughout the school day constitutes a major overall difference between programs.

The classroom observed was very colorful, with student work, art, projects, and teacher/aide-produced displays covering the walls and tables.

Parent and Community Involvement

Project 10 considers its parent advisory committee to be central to its organization, but the influence of this group is designed to be on a policy and attitudinal level and does not directly affect the students and teachers in the classrooms observed.

The teachers interviewed by AIR staff did not report high parent involvement in the classrooms. Class parties are held about every two months, and about a third of the mothers ususally bring food. In one class the parties were tied in with cultural heritage units, and mothers came to demonstrate cooking of local Mexican foods.

Parent/teacher conferences are scheduled each semester. One teacher goes to the parents' home for one of the two conferences, thus ensuring that she sees every student's parents at least once a year. About half the parents come when the conferences are held at school.

PROJECT 11

PROJECT INFORMATION

Project Context and Target Information

Project 11 was initiated in 1972 to serve the needs of the Hispanic target population. The project is operating in one of the twenty-four elementary schools with a total of thirteen classrooms ranging from kindergarten through grade 6. The enrollment during the 1975-76 school year was 328. Approximately 99% of the students are from Puerto Rico or are of Puerto Rican descent. In addition, there are two Dominicans and two black Americans in the program. The majority of families served by the school earn between $2,000 and $4,000 annually. Most of the parents are either semiskilled or unskilled laborers, although some are proprietors or professionals. Approximately 75.4% of the families are Spanish monolingual, 24% are English/Spanish bilingual, and 6% are English monolingual.

Within the larger context of the city, the Hispanic population constitutes approximately 18% of the total figure, while the figure for blacks is 25% and 57% for white non-Hispanics. The socioeconomic status of the majority of residents is middle to upper middle class.

Goals and/or Objectives

The goals and objectives of this project are as follows:

- To concentrate instruction in the area of the second language and to expand upon the acquisition of second-language skills
- To concentrate instruction in improving and expanding upon language skills in Spanish and in English
- To aid the students in attaining a positive attitude toward the white non-Hispanic, black, and Puerto Rican cultures

- To aid the students in becoming balanced bilinguals by the time they have finished the sixth grade
- To create and maintain a project staff of expert administrators, teachers, and paraprofessional aides
- To continue to develop, expand, evaluate, and adapt materials to meet both the educational and cultural needs of the students
- To continue in the development of a positive ongoing school/community relationship

Project Staff

The project staff includes thirteen full-time teachers, ten full-time aides, one full-time English as a Second Language teacher, three full-time learning specialists, a school social worker, a community worker, one full-time curriculum and materials specialist, and a full-time bilingual secretary. Since the position of Project Director remained vacant during the spring semester, the principal at the bilingual school assumed many of the Director's responsibilities.

Of the full-time teaching staff, eleven are Hispanic and two are white non-Hispanic. All but two of the teachers are Spanish/English bilingual. All of the aides are Hispanic and bilingual.

During the 1975-76 school year, eight teachers and aides had been with the project for four years, and four teachers and aides had been with the project for two years or less.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study		
Total number of questionnaires received	9	6
Highest earned college degree:		
No degree		3
Degree or diploma based on less than 4 years of work		1
B.A. or B.S.	5	1
Teaching credential only		
M.A. or higher	4	
No response		1
Type of state teaching credential held:		
Non-credentialed		4
Temporary, provisional, partial-fulfillment, or emergency	1	
Regular credential	4	1
Bilingual-bicultural teaching credential	4	
No response		1
Years of full-time teaching experience:		
Less than 1 year		3
1 year		
2 years	1	1
3 years	1	1
4 years	3	1
5-9 years	3	
10-19 years	1	
20-29 years		
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	1	3
1 year		
2 years	1	1
3 years	3	1
4 years	4	1
5 years		
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		
6-15 quarter units (4-10 semester hours)	2	2
16-30 quarter units (11-20 semester hours)	1	1
More than 30 quarter units (more than 20 semester hrs.)	6	
No college training in bilingual-bicultural		3
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days	4	4
15-30 days		
More than 30 days	5	1
None		1
No response		

Sources of Project Funding

The following funds were specifically designated for and admininstered by the bilingual project:

Title VII	$241,890	
Other Federal and State	9,363	
Orher Scholarship	50	
TOTAL	$251,303	
• Per pupil		$766.17

In addition to the above, the following funds were designated for bilingual project shcools:

Federal and State	$ 36,290	
Other	-0-	
TOTAL	$ 36,290	
• Per pupil		$110.64
• Total per pupil additional funds for bilingual project participants		$876.81

In addition to these funds, the local district provides $357,317 for teachers' salaries. This figure brings the per pupil cost in the bilingual classes to $1,605.

CLASSROOM INFORMATION

Major Features of All Classrooms Observed

- All classes are bilingual and bicultural in approach.
- All classes have displays relating to bicultural themes.
- All teachers work with the administrative staff to design curriculum to meet the needs of the students.

- A locally developed Mathematics program is used in this school.
- Students are tracked according to language dominance and grouped by ability.
- Students are usually placed in homerooms with others of the same language dominance and age.
- Homeroom teachers teach Social Studies, Health, and Science to their students.
- This project is using a cluster model for the instruction of Spanish and English Language Arts and Mathematics.
- The primary cluster involving grades 1 through 3 is comprised of five teachers who instruct students in ability-based groups in the areas of English and Spanish language instruction. Mathematics is taught by the homeroom teachers.
- In the intermediate cluster, students from grades 4 through 6 are grouped by ability for English, Spanish, and Mathematics instruction. One teacher teaches all English classes, another teaches all Spanish classes, and the third teaches Mathematics to each of the three groups.

Impact Study Samples

Two classes, a combined first- and second-grade classroom and a second-grade classroom were randomly selected for detailed observation.

One combined third- and fourth-grade classroom was randomly selected for detailed observation in this study.

Two classes in the fourth-, fifth-, and sixth-grade cluster were randomly selected for detailed observation. One class was a fourth-grade class, the other a combined fourth-, fifth-, and sixth-grade class.

Instructional Strategies for Grades 1 and 2

Major Features

First Grade

- Both classes form part of the first- through third-grade cluster.
- The combined first- and second-grade class has an enrollment of twenty-three students all of whom are Puerto Rican.
- Both the teacher and aide are bilingual.
- Both the teacher and aide are of the same ethnicity as the students.
- Students receive additional instruction from four other cluster teachers.
- Five students are seeing a learning disabilities teacher for a total of 10 3/4 hours per week.
- Seven students see the remedial Reading specialist for a total of 3 3/4 hours weekly.
- The English as a Second Language (ESL) teacher gives forty-five minutes of instruction once a week.

Second Grade

- The second-grade class has an enrollment of twenty-two students: twenty are Puerto Rican, and two are of mixed Puerto Rican ethnicity.
- The classroom teacher is a balanced bilingual, and her aide, a Spanish-dominant bilingual.
- Both the teacher and aide are of Hispanic ethnicity.
- Four other cluster teachers instruct some of the students.
- This teacher also instructs other students in English as a Second Language.
- Two tutors each volunteer one hour a week in the class.
- The bilingual Reading enrichment teacher sees students for a total of three hours a week.

English Language Instruction For Native-Spanish Speakers

Students from both homerooms are grouped by ability for English as a Second Language (ESL) instruction. There are five different ESL classes in the first- through third-grade cluster. The combined first- and second-grade homeroom teacher teaches one of the low groups in oral English only. Twenty-three students receive instruction from the teacher and her aide forty-five minutes daily. In addition, the regular ESL instructor gives a special lesson forty-five minutes each week. The classroom teacher focuses on the development of the students' listening and speaking skills. She works on vocabulary building and pronunciation and uses visual aides such as flash cards, charts, games, and puzzles to encourage their interest. Students also use the Language Master to develop their listening skills. Students put on short skits, learn poetry, and participate in plays. Each Friday they see a movie in English. The language of instruction is about 80% English; Spanish is used as a means of clarification or explanation.

In the second-grade class, eighteen students receive instruction in English Reading from the classroom teacher, her aide, and an ESL instructor who teams with the teacher twice each week for a total of two hours. This class is the most advanced in the cluster. There are two basic strategies for instruction including ability-grouping and individualized instruction. One group of eight students is working on the development of oral/aural skills and on phonics. The remaining students are doing individualized reading in the Houghton Mifflin series. Within the advanced group there is sometimes peer-tutoring and small-group instruction based on need.

The students use their workbooks and locally produced exercise sheets for writing. They are working on vocabulary building, Reading comprehension, spelling, and grammar.

Every week the class sees a movie in English for one hour. Afterwards a group discussion is held. The class also does a life experience chart as a group.

Spanish Language Instruction for Native-Spanish Speakers

In the combines first- and second-grade classroom, Spanish Reading is taught a total of 3 3/4 hours each week. There are three Reading groups each meeting with the teacher fifteen minutes daily. Following small-group instruction, the students spend thirty minutes daily on writing assignments. The seven students in the top group are taught Reading by the aide in the Santillana series and accompanying workbook. The middle group of six students is composed primarily of first-graders who are learning phonics through written and oral exercises, while the lowest group of nine students is working on matching words and pictures. This group gets special enrichment from the bilingual Reading specialist. All groups use flash cards, have Reading notebooks (they must copy sentences from the board), and use the Language Master. As a group, the students tell stories, put on skits, learn poetry, and dictate a life experience story to the teacher. Total language instruction is 6 1/4 hours a week.

In the second grade, Spanish Reading is taught five hours a week by the teacher-aide and the learning disabilities teacher who sees two students for forty-five minutes each week. There are two basic strategies for language instruction: grouping by ability for Reading and writing and large-group instruction for grammar and the development of oral skills. There are four Reading groups working in Santillana series with accompanying workbook for writing. The students read aloud in groups, go over phonics, and answer Reading comprehension questions. Peer-tutoring is used in this class. The teacher has the class participate in plays, act in short skits, learn poetry, and participate in sharing activities. She reads aloud to her students and has the class dictate a life experience story daily. She uses commercial as well as locally produced materials for writing exercises and audiovisual aids for instruction purposes.

Mathematics Instruction

In the combined first- and second-grade class, Mathematics is taught five hours a week by the classroom teacher and aide. The strategies include ability-grouping and individualization within the groups. The teacher instructs the class on basic concepts and the aide gives reinforcement. All students are working with the textbook Matematicas (Silver Burdett). The students do computations in their workbooks and on teacher-produced exercise sheets. She also uses locally produced flash cards. Most students are working at grade level. The primary language of instruction is Spanish (95% of the time).

In the second grade, Mathematics is taught in both Spanish and English for 3 3/4 hours per week by the teacher and the aide. The aide usually works with Spanish-dominant students and uses Spanish as the language of instruction almost exclusively. The teacher uses English as the language of instruction about 70% of the time. The classroom teacher gives a total of thirty minutes of instruction each week, and students spend the remainder of the time working on their computations. There are two ability-based groups, but regrouping occurs often as the need arises. The students are using the text Mathematics (Random House). Exercise sheets and Mathematics charts are locally produced.

Cultural Component

In both classes, Social Studies is taught thirty minutes biweekly. There is a basic curriculum which covers topics such as health care and the community. As holidays occur, time is spent discussing events, famous people, songs, folk dancing. Both English and Spanish are used as the languages of instruction, and teachers and aides give instruction.

Instructional Strategies for the Combined Third- and Fourth-Grade Classroom

Major Features

- Twenty students are enrolled in the combined third- and fourth-grade classroom.
- The students are Hispanic, and most are Spanish Dominant bilingual.
- The teacher is a bilingual teacher, and the aide is Spanish dominant bilingual.

- The teacher participates in the English as a Second Language (ESL) cluster in grades kindergarten through 4 and teaches intermediate ESL.

English Language Instruction for Native-Spanish Speakers

ESL is taught five hours a week to seventeen students. An ESL instructor teams with the classroom teacher three hours a week. The content area includes pronunciation drills, dialogues, storytelling, taped listening comprehension exercises, and vocabulary building. Once a week the students see a film and use it as the basis for discussion. The teacher uses posters and other manipulative objects as visual aids. She also has the students perform in skits. Six students go to a bilingual Reading specialist during the week.

Spanish Language Instruction for Native-Spanish Speakers

Spanish Language Arts is taught 7 1/2 hours a week. Strategies include small-group instruction and instruction of the entire class. Students are grouped according to ability and there are three groups: a beginning (first- and second-grade level), a medium (second- and third-grade level), and an advanced (third- and fourth-grade level). The seven students in the slowest group are taught by the teacher, the learning disabilities specialist, and the aide. The other two groups are instructed by the classroom teacher only. Each day about thirty minutes of time is devoted to Spanish Reading, and the remaining thirty minutes to Spanish writing. All groups are using the Santillana series with accompanying workbooks. The slow group also uses the Language Master and studies phonics. Group instruction is centered around oral skills (thirty minutes daily) including poetry, songs, storytelling, skits, and games. The teacher uses the tape recorder and record player and shows film strips to her class.

Mathematics Instruction

Mathematics instruction is given five hours weekly to eighteen students in Spanish only. The classroom teacher gives occasional group lessons reinforced by the aide. There are three ability-based groups working at different levels. Students use the Random House textbook, Mathematics, and generally move at their own speed. Students also use individualized Mathematics pamphlets. Peer-tutoring is employed.

Cultural Component

Social Studies is taught two hours a week by the classroom teacher and the aide. It is a standard part of the curriculum and is multicultural in approach. Content areas include fables, legends, Geography, History, and famous people. Spanish is used as the sole language of instruction.

Instructional Strategies for Grades 4, 5, and 6

Major Features

Fourth- Through Sixth-Grade Cluster

- Three teachers instruct students of the fourth- through sixth-grade cluster.
- Students are homogeneously grouped by ability and language dominance in the subject areas of English as a Second Language, Spanish, and Mathematics.
- In the two classrooms selected for observation, three teachers give instruction: one in Mathematics, another in English, and the third in Spanish.
- The students are ranked by ability and have been placed in either the high, medium, or low group.
- The ability groupings are constant for all three subjects. The high group, for example, has English, the medium group has Mathematics, and the low group has Spanish. During the next instructional hour, the students again rotate classes.
- Homeroom classes are taught as an intact unit in the areas of Science, Social Studies, and Health.

Fourth-Grade Homeroom

- The fourth-grade homeroom has an enrollment of twenty-one students all of whom are of Puerto Rican ethnicity.
- The classroom teacher is a balanced bilingual and is assisted by a full-time aide who is a Spanish-dominant bilingual.
- The teacher is in charge of English instruction for the fourth- through sixth-grade cluster.
- The ability groupings of the homeroom students include five students in the high group, five in the medium group, and twelve in the low group.

Combined Fourth-, Fifth-, and Sixth-Grade Homeroom

- In the combined fourth-, fifth-, and sixth-grade homeroom the enrollment is twenty-two, and all students are of Puerto Rican ethnicity.
- The classroom teacher is a balanced bilingual, and his aide is a Spanish-dominant bilingual.
- This teacher is in charge of Mathematics instruction for the cluster.
- Seven of the homeroom students are in the high group, eight are in the medium group, and seven are in the low group.

English Language Instruction For Native-Spanish Speakers and Native-English Speakers

Each ability group receives English language instruction five hours a week. The high group of twenty-six students is reading at the third-grade, second-semester level. The medium group of twenty students is reading at the second grade, second-semester level, and the low group of twenty-five students is reading at the first-grade level. The students are reading in the Houghton Mifflin series and do written work in the accompanying workbooks and on locally produced exercise sheets. Three hours a week are spent on Reading, including oral reading, phonics, and Reading comprehension. Two hours a week are spent on written work including grammar, spelling, and vocabulary building. The students in the high group also work on creative writing. The classroom teacher instructs the two top groups by herself. The aide assists her with the low group, and some of the students go to the Reading specialist one hour each day. The teacher uses a variety of commercial materials for English language instruction including charts, flash cards, and games. She also makes use of audiovisual materials including films, movies, records, tapes, and television.

Spanish Language Instruction For Native-Spanish Speakers

Spanish language instruction is given five hours each week to all groups. The Spanish instructor is bilingual and has had over nineteen years of teaching experience in the United States and Puerto Rico. A bilingual paraprofessional aide works with her. One of the Reading groups was observed for language instruction. Two basic strategies were ability grouping within the class and entire-class instruction. All students are using the Laidlaw series with the accompanying workbook for written exercises which include grammar, spelling, vocabulary, and the answering of comprehension questions. The teacher instructs the entire class in Spanish grammar and usage. She has them analyze and write their own poetry. This year each class held oral reading exams in Spanish. Every student had to select a reading passage and present it to the entire class. All other students acted as judges to evaluate the work of their peers. Other group work included Spanish songs and dramatization, dictionary skills, and creative writing.

Mathematics Instruction

Each group receives five hours of instruction a week in Mathematics. There are two basic strategies for instruction. In the two top groups, students are following an individualized program called the "Math HIPS." Students are required to make a contract with the teacher to do a certain amount of work by a specified time. Then the student meets with the teacher who will work with him for five to fifteen minutes. Since each student is in a different program, the teacher spends much time individualizing instruction. However, whenever he finds that two or three students have similar problems, he will give them small-group instruction. He also will give instruction to the entire class about forty minutes each week. In addition to the "Math HIPS", students do Mathematics problems found in the Random House textbook called Mathematics. The lower group uses only the textbook and will begin with the "Math HIPS" when they are ready. About 75% of instruction is in English, and 25% is in Spanish.

Cultural Component

In both classes, Social Studies forms part of the regular curriculum. It is taught about two hours a week. Social Studies instruction includes History, Geography, famous people, and Art. In the class, both English and Spanish are used as languages of instruction depending upon the themes that are being discussed. For example, in the fourth, fifth and sixth grades, the Bicentennial unit is taught in English, while a course called Mi Gente (My People), dealing with famous Puerto Ricans, is taught in Spanish.

Parent and Community Involvement

In the combined first- and second-grade classroom, the teacher has informal talks with parents when they bring their children to school. During the year about ten parents come to class for parties, and three have gone on field trips.

In the second-grade class, there is one parent who volunteers daily and two who come in twice a week. Fifteen parents have come to class parties; four to six participated on field trips; and eighteen come twice a year for parent-teacher conferences.

In the combined third- and fourth-grade class, the teacher has had conferences with parents of each of the students during 1975-76 school year.

In the fourth-grade class and in the fourth- through sixth-grade classroom both teachers have met with parents two times this year to discuss student progress. One of the teachers had made home visits to discuss problems when the parents were unable to come to the school.

PROJECT 12

PROJECT INFORMATION

Project Context and Target Population

Project 12 was initially funded in 1972. The project consisted of one kindergarten classroom and one first-grade classroom in each of the five schools in the District. One grade level has been added each year, and the number of classrooms for each grade has also grown from one to two.

During 1975-76, the project included six schools (forty-eight classrooms with a total of 1,800 students). Of these, twenty-eight classes with a total enrollment of 900 students have been designated as ESEA-Title VII classrooms. The following chart indicates the number of ESEA-Title VII designated classrooms by campus and grade level:

Campus	K	1	2	3	4
A	0	2	2	2	2
B	0	2	2	2	2
C	0	2	2	2	2
D	0	1	1	1	1

Approximately 80% of the population of the town in which the District is located is Mexican-American. The majority are descendents of the original settlers during the Spanish exploration and conquest era; however, a significant percentage of the population are Mexican immigrants. The proximity of the town to the Mexican border makes it a main port of entry. The percentage of Mexican-American students in the bilingual project ranges from 70% to 100% in some schools. Eighty percent of these students have been in the program for three years. Students are selected to participate in the project on the basis of language dominance. The student remains in the bilingual project even after he/she is able to function in school in English. A few English-dominant students are in the project by parental request. These students also remain in the bilingual project even after becoming proficient in Spanish.

The town is situated in a vast farming and ranching area. The nearest large city is approximately 150 miles away. The farming and ranching concerns are the main sources of income and employment. Employment ranges from farm labor at minimum wages to highly paid technical jobs. There is some commerce and industry providing additional jobs, especially in the oil industry and construction. In the Impact Study's target population most heads of families are semiskilled workers and farm laborers with incomes ranging from $2,000 to $6,000. Mose of the families have single-unit dwellings. There is now an emergence of multiple-unit dwellings, evidence of a growing population and constant influx of immigrants.

Goals and/or Objectives

The goal of this project is complete bilingualism. It is felt that the socioeconomic conditions of the area necessitate a language maintenance bilingual program.

Language Arts in English and in Spanish are given equal treatment. About forty-five minutes a day are devoted to Language Arts in each language in kindergarten. In the first grade, one hour is spent in Language Arts in each language and an additional 1 1/2 hours in Spanish-language Reading. In second grade, Reading in the second language (English) is introduced.

By the third grade, the aim is to have instruction in Spanish and English on an equal basis, but not during one lesson. Instruction in both languages is not limited to Language Arts; it includes Social Studies and Mathematics. The teacher alternates language used for instruction each week. One week lessons are presented in English. The following week lessons are presented in Spanish. There is no repetition of lessons unless it is necessary to clarify or reinforce a lesson from the previous week.

Most instruction is done through individualized contracts in all grade levels except kindergarten. (The contract system is explained in the Classroom Information section.)

Ongoing inservice training and workshops specifically devoted to bilingual education are part of the overall project. This is done to fulfill the project objective of having better qualified teachers and aides in bilingual classrooms.

Project Staff

The total number of staff on the bilingual project is ninety-two. There are forty-eight full-time classroom teachers; forty are Hispanic and seven are white non-Hispanic. Forty-seven teachers are Spanish/English bilingual and one is English monolingual. The project employs thirty-one full-time aides, all Hispanic and Spanish/English bilingual. Thirty of the aides work with the classroom teachers, and one works directly with the Project Director. Other support personnel include five part-time remedial Reading teachers, three full-time curriculum materials specialists, two full-time and two part-time professional consultants, two part-time school/community liaison, and the full-time Project Director. Of these, nine are Hispanic and four are white non-Hispanic. Ten are Spanish/English bilingual, two are English monolingual, and one is Spanish monolingual.

AIR staff tested fifteen classrooms, including six bilingual classrooms. As part of the Impact Study, information was obtained regarding teacher and teacher aide preparation, certification, and ongoing inservice training and/or workshops.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	6	6
Total number of questionnaires received	6	6
Highest earned college degree:		
No degree		5
Degree or diploma based on less than 4 years of work		1
B.A. or B.S.	6	
Teaching credential only		
M.A. or higher		
No response		
Type of state teaching credential held:		
Non-credentialed		5
Temporary, provisional, partial-fulfillment, or emergency	1	
Regular credential	3	
Bilingual-bicultural teaching credential	2	
No response		1
Years of full-time teaching experience:		
Less than 1 year	1	2
1 year	1	2
2 years	1	1
3 years		
4 years	2	1
5-9 years	1	
10-19 years		
20-29 years		
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	2	2
1 year	1	3
2 years		
3 years	1	
4 years	1	1
5 years	1	
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		
6-15 quarter units (4-10 semester hours)	1	1
16-30 quarter units (11-20 semester hours)	1	
More than 30 quarter units (more than 20 semester hrs.)	1	
No college training in bilingual-bicultural	3	4
No response		1
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days	2	1
15-30 days		2
More than 30 days	4	2
None		1
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$210,000	
Other Federal and State	-0-	
Other (Private Foundation)	-0-	
TOTAL	$210,000	
• Per pupil		$116.00

In addition to the above, the following funds were designated for bilingual project schools:

Campus A

Federal and State	$ 79,056	
Other	-0-	
TOTAL	$ 79,056	
• Per pupil		$ 81.00
• Total per pupil additional funds for bilingual project participants		$197.00

Campus B

Federal and State	$ 68,856	
Other	-0-	
TOTAL	$ 68,856	
• Per pupil		$ 81.00
• Total per pupil additional funds for bilingual project participants		$197.00

Campus D

Federal and State	$ 51,354	
Other	-0-	
TOTAL	$ 51,354	
• Per pupil		$ 81.00
• Total per pupil additional funds for bilingual project participants		$197.00

The district average per pupil cost is $868. This figure plus the additional $197 per pupil cost in the bilingual classrooms brings the total per pupil cost in bilingual classes to $1,065. The similarity in the SES of the families served by all the schools accounts for the even distribution of funds to the schools in which the project operates. Though the extra funds for bilingual education from federal and state sources are represented by school, these funds are channeled through the bilingual project.

CLASSROOM INFORMATION

Major Features of Classrooms Observed

The District uses the individualized contract system for levels 1 to 5. This approach has been adapted to bilingual education also. Extensive research is done by the three curriculum materials specialists in developing the contract system in Spanish to correlate to the English system. A contract involves a short lesson in specific subject area. Each student maintains a checklist of assignments. Students work at their own pace within the allocated time for a particular subject area. Extra activities such as games and art work are included in the contract as incentives and extra work for students that finish before the allocated time. All students, however, are allowed time during the week to participate in extra activities regardless of task completion. Each task is coded as it pertains to subject, level, content, and language; and each task is available in both languages.

Impact Study Samples

Two of twelve second-grade classes in the bilingual project were randomly selected for detailed observation. One of the classrooms has an enrollment of thirty students; the other, thirty-one. All the students in both classes are of Mexican ethnic background. Also, there is an aide in each classroom, each spending an average of 2 1/2 hours a day in the class.

One of the seven third-grade classes in the bilingual project was also included in the intensive study. Enrollment in this class is twenty-nine, all of Mexican ethnic background.

Instructional Strategies for Grade 2

The following description applies to both classes since both follow very closely project-designed scheduling, curriculum, and methodology. As previously mentioned, instruction in individualized and the contracts system is used.

The student checklist is reviewed by the teacher on a daily basis by subject area. The teacher checks for any indication that the student is omitting tasks or falling too far behind in task completion. Also, the teacher or aide reviews the student's work and provides individualized instruction as needed by the student.

English Language Instruction for Native-English Speakers

There were no native-English speakers in the classes observed. Native-English speakers are assigned to regular classrooms.

English Language Instruction for Native-Spanish Speakers

English language instruction is presented as English as a Second Language (ESL). The strategy is to have total immersion in the English language; however, there is direct translation at times. The greater emphasis is on oral English and writing. As stated in the objectives and goals, Reading in English is introduced in the second grade. One hour is spent each day in ESL which includes English Reading. Both the teacher and the aide work with the students during the ESL and Spanish Language Arts periods.

While students work independently on Language Arts contracts, the teacher and/or aide works with one student or very small groups for the Reading instruction. Independent silent reading is also scheduled during the week in addition to oral reading with the teacher and/or aide. English Language Arts very closely parallels Spanish Language Arts; however, less time is allocated for English Reading since it is introduced in the second grade.

Besides the project-developed contracts, both teachers use the textbook English Around the World (Scott Foresman & Co.). Other instructional materials include charts, games, flash cards, and audiovisual equipment with cassetees and filmstrips.

Spanish Language Instruction for Native-Spanish Speakers

The same strategy is used for Spanish language instruction as in English language instruction; however, more time is allotted. One and a half hours each day are spent in Spanish Language Arts which includes Spanish Reading. Also, the strategy is total immersion in Spanish.

Both teachers use the Laidlaw series and the Santillana series for instructional texts. As in ESL, charts, games, flashcards, and audiovisual equipment are used as instructional materials.

Spanish Language Instruction for Native-English Speakers

As previously mentioned, there were no native-English speakers in the classes observed.

Mathematics Instruction

Mathematics is scheduled for one hour five times a week. Mathematics instruction is in Spanish with introduction and familiarization of English terms and expressions. The text, Modern School Mathematics, is used mainly for reference in making exercise sheets.

Cultural Components

Social Studies is scheduled for one hour, five times a week. The cultural component is part of Social Studies. Aside from being taught in Spanish, Social Studies content is the same as in the regular classrooms. Famous people and holidays relating to the Mexican culture are emphasized at the appropriate time. Most of the instructional materials used in Social Studies are teacher produced and/or project developed.

Instructional Strategies for Grade 3

In keeping with the project goals, instruction in all subject areas is 50% Spanish and 50% English; however, no lesson uses both languages simultaneously. A weekly schedule is maintained to give equal time to each subject area for bilingual instruction. Usually, the teacher alternates language used on a weekly basis. To summarize, the second and third grades use the same approach including the role of the teacher aide, instructional materials, and texts (third-grade level).

Parent and Community Involvement

Serving a small community, the schools are very much a focal point, with parental input and decision-making in school affairs. There is direct communication with parents. The school/community liaison person works with teachers, students, and parents. Parents are encouraged to participate in school activities and to become involved in PTA. There is significant parent participation in school board and Bilingual Education Advisory Board meetings. The District maintains a policy of direct communication and involvement.

PROJECT 13

PROJECT INFORMATION

Project Context and Target Population

Project 13 is located in the outskirts of a large Southwestern city. The school district serves a rural area of 100 square miles. There are approximately 2,300 pupils served by the District. Nine out of every ten children are bused to school from the surrounding rural area.

There is one school participating in the Title VII Project within the school district with a total of eleven classrooms and approximately 350 project participants. Only grades 4 and 5 were funded by Title VII funds in the 1975-76 school year. Kindergarten through grade 3 were funded by state bilingual funds.

According to the principal interviewed, approximately 80% of the school enrollment is of Hispanic descent while 20% is of white, non-Hispanic descent. The total school enrollment is approximately 823 including the three new kindergarten classes added last month. The principal further estimates that about 70% of the families in the school attendance area are bilingual to some degree with approximately 10% being monolingual Spanish and 20% being monolingual English.

The housing pattern consists of open rural single-unit small lots with a great majority of the families living in mobile homes. Most of the families served by the school are employed as laborers, or domestic help, with some as semiskilled workers who commute to the nearby large city.

The principal roughly estimates the average gross annual income of the families served by the school to be between $6,000 and $7,000 including social welfare benefits, which many families receive.

The mobility rate is approximately 25%. However, this is not due to migrancy. Approximately fifty-five to sixty students are migrants; however, they leave only during the summer months. Out of last year's enrollment, 200 children left and 160 new students enrolled.

The principal suggests that while the Mexican and white non-Hispanic groups seem to work together in school/community affairs, there is much racial tension between the two in the surrounding community.

Goals and/or Objectives

The project outlines specific measurable objectives in the area of curriculum development, staff development, management skills, and parent involvement. However, according to the Project Director, the principal overall objectives are to increase the English Reading achievement of Mexican-American students of limited English-speaking ability through a Spanish Language Arts and a Spanish Social Studies program, and to implement and develop a team-teaching approach consisting of monolingual and bilingual teachers.

Project Staff

The Title VII project at School A employs seven aides, one curriculum/materials specialist, one community/school liaison, one project director, one project evaluator, and one classroom supervisor, all of whom are full-time, bilingual, and of Hispanic descent with the exception of the project supervisor who is of white non-Hispanic descent. Aside from this project staff, eleven teachers (paid by state funds) participate in the project. Out of the eleven teachers, seven are bilingual Hispanics, two are English monolingual blacks and two are English monolingual non-Hispanic whites.

Aside from the Title VII staff, there are Title I remedial Reading teachers and aides, three learning disabilities teachers (one Hispanic and two white non-Hispanic) and one district fifth- and sixth-grade counselor available to the students in the bilingual project.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study		
Total number of questionnaires received	4	3
Highest earned college degree:		
No degree		3
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	4	
Teaching credential only		
M.A. or higher		
No response		
Type of state teaching credential held:		
Non-credentialed		3
Temporary, provisional, partial-fulfillment, or emergency	1	
Regular credential	1	
Bilingual-bicultural teaching credential	2	
No response		
Years of full-time teaching experience:		
Less than 1 year	1	2
1 year	1	
2 years	1	
3 years		1
4 years		
5-9 years	1	
10-19 years		
20-29 years		
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	1	1
1 year	1	1
2 years	1	
3 years		1
4 years	1	
5 years		
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		
6-15 quarter units (4-10 semester hours)	2	1
16-30 quarter units (11-20 semester hours)		1
More than 30 quarter units (more than 20 semester hrs.)	2	
No college training in bilingual-bicultural		1
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days	1	3
15-30 days		
More than 30 days	3	
None		
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$183,659	
Other Federal and State	10,045	
Other	-0-	
TOTAL	$193,704	
• Per pupil		$499.96

In addition to the above, the following funds were designated for bilingual project schools:

Federal and State *	
Other	
TOTAL	
• Per pupil	$156.57
• Total per pupil additional funds for bilingual project participants	$656.53

*This school received Federal Title I as well as state bilingual funds, but the total amounts are not available on the individual school basis.

Title VII pays for bilingual instruction for approximately 395 fourth- and fifth-graders. The project is actually funded for only 250 students. However, because racial conflicts were highlighted by segregated bilingual classrooms in the past, the entire fifth grade was absorbed into the project.

CLASSROOM INFORMATION

Impact Study Samples

One of the two classrooms tested for the Impact Study was randomly selected for detailed observation in this project.

Instructional Strategies for Grade 4

Major Features

The classroom is composed of thirty-five students. Thirty-four are of Mexican-American descent and one student is of black descent. According to the teacher interviewed, only the one black student spoke English fluently at the beginning of the school year. The students in this school are ability grouped by classroom, and this classroom happens to be the low and remedial section of the fourth grade. The teacher is a first-year teacher and indicates that discipline is a major day-to-day problem.

English Language Instruction

Written and oral English language instruction is taught on an entire-class approach with the exception of spelling, which is taught on an individual basis. Written Language Arts consists of capitalization, punctuation, spelling, and grammar and is taught for approximately four hours weekly. Two and a half hours are spent in direct instructional time while 1 1/2 hours are spent on independent study. Oral Language Arts covers the skills of poetry, skits, storytelling, choral reading, and sharing. Approximately ten to twenty minutes are spent on a weekly basis on either of these subjects. English Reading is taught to six different groups by the classroom teacher. Approximately five students from another fourth-grade classroom receive Reading instruction with Reading groups in this classroom while the students from this classroom receive Reading instruction with the fourth-grade classroom of average/low ability next door.

Group A consists of five students, one of whom is considered to be a learning disabilities student and was reading the textbook Seen Free (Economy) at the time of visitation. Group B consists of two students in this classroom plus three from next door at level 4. They were using the textbook Zip! Pop! Go! Group C consists of nine students at level 5 (Primer 4). Two other students at this level go to a Reading group next door. This group was reading in the textbook Green Feet. Group D consists of seven students reading the beginning of the first-grade book, Blue Dilly Dilly. One other student at this level goes to a similar group next door. Group E consists of one student from this classroom and two from next door. They were reading in the middle part of the book Blue Dilly Dilly. Group F consists of six students who were reading in the last section of the textbook Blue Dilly Dilly. Each group receives approximately fifteen minutes of Reading instruction daily and spends approximately thirty minutes daily on independent Reading tasks. Based on the classroom observation, it appeared that much of the time was spent on classroom management and getting the students ready to work. Aside from the regular Reading period, the majority of the class receives an extra hour of Remedial Reading reinforcement on a daily basis from a Reading teacher funded by migrant funds. While the teacher works with the rotating Reading groups, the aide attends to the rest of the students working independently at their seats. The groups rarely regroup. The criteria for the group arrangements within the ability-grouped classroom are based upon standardized test results.

Other books used in the instruction of English Language Arts are Basic Goals in Spelling (Webster, McGraw-Hill) and Adventures in English (Laidlaw).

Spanish Language Instruction for Native-Spanish and Native English Speakers

Spanish Language Arts are taught within six different groups and cover grammar, spelling, punctuation, capitalization, phonics, and Reading comprehension. According to the teacher interviewed, approximately 1/2 hour a week is spent in written Lanugage Arts instruction time and about another 1/2 hour in written language independent work within the Reading groups. The teacher further estimates that each group receives approximately forty-five minutes of direct Reading instruction on a weekly basis and about 2 1/2 hours a week of independent Reading work. While the teacher rotates groups, the aide works on an individualized basis with the rest of the class. The Reading groups change rarely and, if so, changes are made based upon ability and need. The criteria for designating the grouping arrangements are based on project test results and teacher observations.

Oral Language Arts covers the areas of dramatic arts, poetry, storytelling, choral reading, and sharing skills. Approximately thirty minutes weekly are devoted to these skills on an entire-class basis.

The grouping arrangement for Spanish Language Arts consists of six small groups. Group A is composed of four Spanish-dominant low ability students, who were reading the book Elena y Dani (Cultural Centro Americano). Group B consists of six low ability, Spanish-dominant students who were reading the textbook Aprendemos a leer (Laidlaw). Group C consists of five bilingual students with an emphasis on Spanish. They are of average/low Spanish Reading ability and were reading the textbook Nuestros Amigos (Laidlaw). Group D consists of five average ability students who were reading the textbook Aprendemos a leer. Group E was reading in the textbook Nuestros Amigos and consists of six average ability students who are bilingual. Group F consists of six high ability students who are also bilingual and was reading the textbook Libro Primero de lectura (La Escuela Nueva).

Second-language instruction is not taught as a separate subject per se, but rather ESL concepts are informally incorporated into all other subjects since only one student spoke English fluently at the beginning of the year.

Mathematics Instruction

Mathematics instruction is given by the classroom teacher to two large groups. The skills covered include addition, subtraction, division, fractions, and measurement through the new math approach outlined by the textbooks used by the various groups. Group A consists of sixteen students and uses the textbook Exploring Elementary Mathematics Level 4 (Holt, Rinehart, Winston). Group B consists of ten students and uses the same textbook as Group A, except that the level used is 3. An hour daily is devoted to Mathematics instruction. Based on the teacher interview, approximately one-half of the time is spent on direct or guided instructional time and about one-half on independent study. While the teacher works with one group, the aide oversees the students working independently at their seats. The criteria for designating the grouping pattern are based on last year's records (cumulative files).

Aside from these two major Mathematics groups, a group of eight remedial Mathematics students go the Mathematics resource center and receive Mathematics instruction from a Mathematics resource teacher and aide through an individually guided instruction approach. The skills covered for these eight students include addition and subtraction. Approximately two hours a week are spent in direct teacher/aide instruction, and about three hours a week are spent in individually guided and independent work.

Cultural Component

The cultural component is not taught as a separate subject but rather is incorporated into the Spanish Reading groups. The teacher and the aide divide the class into two sections of three Reading groups about twice a week and alternate for the cultural component. The bilingual resource teacher generally organizes and participates in these activities. All cultural topics are covered, ranging from art and cooking to music and history. Approximately forty-five minutes a week (twice a week) are devoted to the cultural component and a total-immersion Spanish-language approach is used.

Instructional Strategies for Grade 5

One out of two classrooms was randomly selected for detailed observation in this project. Since the project at this grade level operates under a team-teaching approach and the students have individual schedules for the major part of the day, the students in the Spanish, first-period classroom were randomly chosen for the intensive study observation segment.

Major Features

Because of racial conflicts in the upper elementary grades in the past, the entire fifth-grade student body was incorporated into the bilingual project this year. Thus, all students, regardless of their ethnic or language background, receive some bilingual instruction.

The classrooms are ability grouped according to homerooms rather than language dominance. Instruction is given using a team-teaching approach, and the students maintain diverse schedules throughout the day with the exception of English (not including Reading) and Language Arts where they remain together as a language group.

The group tested and observed for the Impact Study is composed of thirty Mexican-American students of whom all are bilingual. The Spanish teacher they receive instruction from is a white, non-Hispanic who has had four years experience as a bilingual teacher.

English Language Instruction for Native-English and Native Spanish Speakers

Written and oral Language Arts instruction is taught by a monolingual English black (non-Hispanic) team-teacher to the Spanish, first-period group. The class is divided into two large groups for language instruction. Group A consists of nine low/remedial students while Group B consists of twenty-three students who are at grade level but are still considered to be of average/low ability by the teacher. Most of the teacher's time is devoted to the lower group while Group B works more independently with some teacher supervision. The Language Arts period meets daily for forty-five minutes. The teacher comments, however, that approximately ten minutes is spent daily trying to get the class started. Group A receives approximately 2 1/2 hours of direct teacher instruction on a weekly basis and approximately 2 1/2 hours of independent study while Group B receives about 2 1/2 hours weekly of independent work and about twenty-five minutes weekly of direct teacher instruction in grammar, spelling, creative and non-fictional writing, and written mechanics. The only oral Language Arts skills covered are storytelling and sharing. Approximately fifteen minutes a week are devoted to these topics. There is no aide present in the English Language Arts period, and the criteria for designating the two grouping arrangements are based upon standardized test results and teacher observation. The textbooks used include Basic Spelling Goals, Level 3 for Group A and Level 5 of the same series for Group B (Webster, McGraw-Hill). Both groups use the textbook Composing Language Channels (Macmillan). However, Group A spends much of the period using a tape-recorded flash card spelling machine since many in the group are non-English readers. At the time of observation, vocabulary words being fed into the spelling machine consisted of simple three or four letter, one-vowel words such as sat, the, sit, and cat.

Spanish, first-period pupils receive English Reading instruction from their respective homeroom teachers. Thus the group is divided into six reading-ability sections. Specific information on each group was not obtained since not all the teachers were available for interviewing and observing at the time of visitation. The classroom observed for English Reading instruction was the group composed of six students from the Spanish first-period class. That homeroom teacher and bilingual aide divided the class for instruction into two Reading groups. Both groups were using the textbook Roller Skates (Addison-Wesley). The Reading period is for forty minutes on a daily basis. According to the teacher interviewed, an average of approximately thirty minutes daily is spent on direct teacher instruction or guided Reading, and an average of ten minutes daily is spent on independent study. Groups never or rarely regroup for Reading instruction. The criteria for designating the grouping arrangement are based upon ability-grouped homerooms. Homeroom assignments are based upon the previous year's records. Of the six homeroom Reading sections, at least four have bilingual aides. In addition to the regular Reading period, many students in the bilingual program receive an extra thirty to forty minutes daily of English remedial Reading. Since remedial Reading assignments are made in the homerooms, the Spanish teacher whose first period was tested could not identify any students receiving remedial Reading. Of those in her homeroom who are also in her Spanish first-period class, none are enrolled in remedial Reading.

There is no second language (ESL or SSL) component for the group tested, just Spanish Language Arts.

Spanish Language Instruction for Native-English and Native-Spanish Speakers

The Spanish first-period class, the group of students randomly selected for testing, is composed of students from six different fifth-grade homerooms. This period meets on a daily basis for forty-five minutes. Instruction is given in written, oral, and Reading Spanish Language Arts to three groups of students. Group A consists of nine low/remedial ability students, of whom three are considered to have learning disabilities and one is considered to have language disabilities. This group uses no major Reading textbook for Spanish instruction. Since the attention span is low, the teacher focuses on experience stories, symbol and sight words, and phonics. A series of eight books provided by the federal regional office are used by the teacher to introduce Reading concepts to the students. Group B is composed of eight students of average Spanish-speaking ability. They were reading the textbook Nuestros Amigos (Laidlaw). Group C is composed of twelve students of high Spanish-speaking ability. They were reading the textbook Del Campo al Pueblo (Laidlaw). The classroom teacher and the aide rotate Reading groups for instruction. The written Language Arts skills of grammar, spelling, creative and non-fictional writing, and written mechanics are covered within the Reading assignments. Based on the teacher interview, approximately one hour a week is spent in the instruction of these specific skills and approximately half an hour a week is spent in independent study. The Spanish oral Language Arts covered include dramatic arts, poetry, storytelling, and sharing skills. The amount of time devoted to these skills varies; however, up to thirty minutes a week may be spent in these areas. All library work is on an individualized basis.

In the Spanish period, approximately an hour a week is spent on direct Reading instruction, and approximately forty-five minutes a week is spent on independent Reading tasks. The rest of the time (two periods a week) is devoted to the cultural components in the Spanish Language Arts.

Mathematics Instruction

All fifth-grade teachers work as a team in the instruction of Mathematics. The entire fifth grade is on an individualized Mathematics contract basis. Each teacher is responsible for teaching a specific skill. The students rotate teachers depending on their mastery level. The skills covered include addition, subtraction, multiplication, division, ratios, percentages, and measurement. Forty-five minutes daily is devoted to

Mathematics instruction. During that time, movement is continous. Students are engaged in independent study, small-group instruction, peer-group instruction, manipulative game-playing and ongoing mastery testing.

The students are assigned an individual contract at the beginning of the year based upon the results of a skills checklist test. There are no major textbooks used. The curriculum is based upon teacher-made exercises and skill checklists. Both Spanish and English are used for instruction by the bilingual teachers. There are five team teachers, four of whom are bilingual, and four bilingual aides involved in the Mathematics program. The grouping patterns change on a daily and weekly basis.

The daily Mathematics routine commences by having all fifth-graders report to their homeroom teachers, who in turn distribute their Mathematics contracts. The students then line up outside their specific skills classroom (the entire wing is fifth-grade classrooms). The four aides coordinate the testing, mastery checkoffs, and the next specific skill assignments in the building's hallway, where testing is an ongoing process.

Cultural Component

The cultural component is given twice a week for about twenty minutes within the Spanish Language Arts period which is coordinated by the Spanish resource teacher. The teacher and the aide also participate in the instruction of these cultural activities. Approximately one-half of this time is given within the Spanish Reading groups. The topics covered in the cultural component include art, folk dancing, history, holidays, and music. Both English and Spanish are used in the instructional approach.

Parent and Community Involvement

During the 1975-76 school year, the project used television and newsletter forms of media to publicize the bilingual project. According to the Project Director, parents of the students in the bilingual project volunteered over 1,000 hours of work toward the project in the 1975-76 school year. This included making toys, preparing materials, decorating bulletin boards, etc. He further indicated that there is active participation in cultural activities such as the Cinco de Mayo celebrations and that parents are involved in the actual Title VII proposal writing through the Bilingual Advisory Committee.

The fourth-grade teacher indicated that approximately two parents participate each semester in class parties and that about five parents will be available once a year for participation in class field trips. At the time of visitation, one student conference had been held. The teacher reported that parent participation was poor because few parents needed to come to the school, they lived at great distances form the school, and they did not feel welcome at the school.

Based on the fifth-grade Spanish teacher's interview, approximately three parents of the students tested will participate at least once a semester. About two parents will help supervise class field trips once a semester, and approximately five are active in the bilingual PTA. Although no parent conferences had been held with parents of this class period, the teacher felt that most parents would come if requested to do so by the teacher. She further estimates that approximately ten will come to the annual Open House.

PROJECT 14

PROJECT INFORMATION

Project Context and Target Population

There are twenty-two schools in the district where this project operates. The schools are situated in a primarily rural agricultural community and have an ethnic distribution of about 35% (4,650) Spanish-surnamed students. Of the total number of students, 25% (12,984) in the District have limited English-speaking ability. Initially, the project was funded in 1972. It operated in one school with about 250 participants in kindergarten through grade 4. The project has grown vertically and horizontally to include two schools in kindergarten through grade 6 and covers all classes in one school and four classes in the other school. This project addresses itself to about 350 students in kindergarten through grade 6. Of these, 45% of the students are of limited English-speaking ability. Since the secondary purpose of the program is to foster an environment of cultural acceptance, enrollment is open to other students besides those of limited English-speaking ability.

Currently, the District has state funding for additional bilingual classrooms, but this project is separate from the Title VII one. This narrative describes only the Title VII bilingual project.

The community in which the project operates is located in a vast agricultural area. The rural environment is offset by the emergence of factories and other businesses associated with agriculture. The dominant types of occupations of the families served by the schools include farming (owner or tenant), semiskilled work, and farm labor. The average gross annual income of the families ranges from $2,000 to $4,000 for laborers and from $10,000 to $15,000 for owner or tenant farmers. Semiskilled workers earn from $2,000 to $6,000 annually. A few workers commute to neighboring communities and to the nearest city which is approximately forty-five miles away.

In some schools, the students of Mexican descent make up from 70% to 85% of the total enrollment. Of these, 15% are estimated to be from migrant farm-working families. These statistics reflect the community composition in general.

Goals and/or Objectives

The major goal of this project is to develop an effective and feasible district model for bilingual multicultural education. The project is designed to accelerate pupils' facility in two languages and to increase their self-esteem and capacity for self-guidance so that they can deal effectively with a multicultural environment.

One of the project objectives is to use small-group processes to achieve bilingualism by the sixth year of instruction. The small-group process involves peer leadership, a task analysis approach to microteaching, leadership training, a free flow of bilingual communication, effective use of cross-age tutors, and the participation of parent volunteers.

Project objectives specifically outline a program for staff development not only for teachers and aides, but also for administrators to assist all in working effectively in an educational bilingual setting. This is achieved through preservice and inservice training periodically scheduled during the school year.

Parent and community involvement is another objective of the project. The project objective is to develop a program of parental and community involvement that will lead to improved acceptance of bilingual education within the community. This involvement is discussed further in the Parent and Community Involvement section.

Project Staff

Classroom personnel include thirteen teachers and twelve aides. All twelve aides are Hispanic and bilingual. Six teachers are Hispanic and seven are white non-Hispanic. All thirteen teachers are bilingual. Support personnel include a psychologist and a speech-hearing specialist.

Both are white non-Hispanic and English monolingual. Additional staff include one curriculum/materials specialist, one school/community liaison, and one project director. These three are all Hispanic and bilingual.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	5	5
Total number of questionnaires received	3	3
Highest earned college degree:		
No degree		2
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	3	1
Teaching credential only		
M.A. or higher		
No response		
Type of state teaching credential held:		
Non-credentialed		2
Temporary, provisional, partial-fulfillment, or emergency		
Regular credential	3	
Bilingual-bicultural teaching credential		
No response		1
Years of full-time teaching experience:		
Less than 1 year		2
1 year		
2 years		
3 years	1	1
4 years		
5-9 years		
10-19 years	2	
20-29 years		
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	1	2
1 year		
2 years		
3 years	2	1
4 years		
5 years		
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)	1	1
6-15 quarter units (4-10 semester hours)		
16-30 quarter units (11-20 semester hours)		
More than 30 quarter units (more than 20 semester hrs.)	1	
No college training in bilingual-bicultural	1	2
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days	2	1
15-30 days	1	
More than 30 days		
None		2
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$164,000
Other Federal and State	116,000
Other (Private Foundation)	-0-
TOTAL	$280,000

- Per pupil $814

The district average per pupil cost is $900; therefore, an estimated average per pupil cost in bilingual education is $1,714.

CLASSROOM INFORMATION

Major Features of Classrooms Observed

Of twelve bilingual classrooms, five classes (one in each grade level, grades 2 through 6) were included in the Impact Study. Of these, two were randomly selected for the Intensive Study which included classroom observation. One of two second grades and one of two fifth grades were observed for bilingual treatment and instructional strategies as described in the following pages.

Instructional Strategies for Grade 2

Major Features

The classroom observed has a total enrollment of twenty-six students. Twenty are of Mexican descent and six are white non-Hispanic. The six white non-Hispanic students are in the bilingual project by parental request while the other students were enrolled in the project based on language dominance and/or parental request. Classroom personnel include one white non-Hispanic teacher and one Hispanic teacher aide. Both are English/Spanish bilingual.

Grouping in this class is for task completion rather than on the basis of ability. In the morning, there are six centers (Reading, Mathematics, Language Arts, listening, and writing) with four or five students in each group. The students are grouped heterogeneously so that dominant language, ability, social maturity, and leadership qualities are evenly distributed throughout the six groups. The groups rotate every twenty to twenty-five minutes. At the Reading center, the teacher works with the students on an individual basis. The Mathematics center instruction is led by the aide. Using the Ferguson Series, which is programmed, enables the students to work at their own rate. Usually the instruction in the other centers involved independent work or work with student leaders.

The afternoon is devoted to Music, Physical Education, Science, Health and second-language acquisition. The afternoon groupings are similar to the morning ones, but often the groups are fewer and larger.

English Language Instruction for Native-English and Native-Spanish Speakers

Instruction in written and oral English is the same for the entire class. English grammar and mechanics, spelling, creative writing, sharing, poetry, and storytelling are included in the language, listening, and writing centers. Approximately 3 1/2 hours per week are spent in these subject areas.

English Reading instruction is provided by the teacher. Only twelve students--all English dominant--are in English Reading. The rest of the students receive Spanish Reading instruction. Four students are high-ability readers; four, average-ability; and four, low-ability. They are not, however, grouped as such for Reading. The teacher prefers to have three mixed groups. The students usually spend 2 1/2 hours a week in English Reading.

Textbooks and instructional material includes Design for Reading (Harper & Row), Pre-reading and Supplementary (Lippincott Co.), Merrill Linguistics, Bowman Series. Audiovisual equipment, such as tapes, cassettes, filmstrips, records, and television, are used.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

Instruction in written and oral Spanish is the same for the entire class. Instruction is in Spanish and covers Spanish grammar and mechanics, vocabulary, and creative writing. Approximately 3 1/2 hours a week are spent in these areas.

Spanish Reading instruction is provided by the teacher. Fourteen students receive instruction. These students are bilingual; two of them are Spanish dominant. The instructional strategy, including the time allotted, is the same as in English Reading.

Instruction in Spanish Language Arts is designed so that bilingual and Spanish-dominant students can receive instruction for language maintenance. At the same time, English-dominant students receive instruction in Spanish as a Second Language.

Textbooks and materials used are Santillana Series, Que bonito es leer (Dissemination Center, Austin, TX), Ideal School Supply Co. Phonics Series. Audiovisual equipment includes tapes, cassettes, filmstrips, records, and movies.

Mathematics Instruction

Mathematics is taught in the student's dominant language. Instruction is on an individual basis and is usually provided by the aide. In this grade level students work with addition, subtraction, fractions, and time measurement. The students are exposed to the new math. Approximately 2 1/2 hours a week are spent in mathematics. The Ferguson Series and California Series are used for programmed individualized instruction.

Cultural Component

The purpose of the cultural component is to enhance the development of all students in both cognitive and affective domains. The intent is to develop a multicultural program that will give both Spanish- and English-speaking students, as well as students of other cultures, a personal cultural acceptance productive of a positive self-concept.

Since the majority of the students are of Mexican descent emphasis is on Spanish-speaking cultures. The students learn about the art, food, legends, games, music, famous people, and history of the Hispanic people as well as of other cultures.

Instruction is in both English and Spanish. This class is taught for forty minutes, three times each week. Both the teacher and the aide select topics and develop instructional material. Often, the textbooks and materials, including audiovisual equipment, in Spanish Language Arts are used in this class.

Instructional Strategies for Grade 5

Major Features

The class observed has a total enrollment of twenty-seven. Twenty-one students are of Mexican descent, and six are white non-Hispanic. The teacher is white non-Hispanic and bilingual. There is one full-time aide assigned to the class. The aide is Hispanic and bilingual. In addition, one migrant aide (Hispanic and bilingual) and one community volunteer (white non-Hispanic and English monolingual) provide tutorial services. Usually they spend an average of four hours each in this class.

The "small work groups" strategy is also used in this class. Instruction is given in the student's dominant language with the exception of English Language Arts (English is used) and Spanish Language Arts (Spanish is used). The first fifteen minutes of the day are used for group division and instruction of the day's tasks. Each student has a contract listing tasks to be performed.

English Language Instruction for Native-English and Native-Spanish Speakers

Students are grouped by language dominance for English Language Arts and Reading. There are different groupings for spelling based on ability. Also, five Spanish-dominant students receive spelling instruction in Spanish only. Each group receives instruction in English grammar and mechanics, creative writing, phonics, Reading comprehension, and oral

The teacher usually provides instruction and does Reading with each group. The aide provides tutorial help for independent work and occasionally works with each group for additional reading. Approximately 5 1/2 hours a week are spent in English Language Arts. The major textbooks used are *Basic Goals in Spelling* and the SRA series. Some independent work requires the use of cassettes and filmstrips. Additional instructional materials include puzzles, games, exercise sheets, charts, and flash cards.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

Grouping for Spanish Language Arts is based on language dominance. The instructional strategy and classroom management, including the time allotted, parallels English Language Arts. Instruction for the English-dominant students is for second-language acquisition. Bilingual and Spanish-dominant students receive instruction for language maintenance. Both the teacher and the aide provide instruction. All groups use the Santillana series. Additional instructional materials include tapes, cassettes, filmstrips, movies, and displays.

Mathematics Instruction

Mathematics instruction is in both languages. Students are encouraged to use whichever language they are most proficient in. Instruction is on an individual basis using the Ferguson Mathematics Series for individual achievement. Both the teacher and the aide provide Mathematics instruction. Two and a half hours a week are spent in Mathematics.

Cultural Component

The cultural component in this grade level has the same format as in second grade. Although the emphasis is on the Hispanic cultures, the students also study other cultures. The class is more closely tied in with Social Studies. Both the teacher and the aide select topics and develop instructional materials. Instruction is in English and Spanish. Instructional materials include tapes, filmstrips, movies, literature, and displays.

Parent and Community Involvement

One of the specific objectives of the project is to have parents and the community participate in the educational process. The parent council serves as an advisory group. It participates in the planning, implementation, and evaluation of the program. Besides the parent council, parents are encouraged to maintain direct communication with the teachers and program personnel. Many parents are involved directly with the classrooms, providing tutorial instruction and/or serving as resource persons for the various project activities.

PROJECT 15

PROJECT INFORMATION

Project Context and Target Population

Project 15 began in 1971. The District includes twenty elementary schools, five junior high schools, and two high schools. There is a total of approximately 1,500 students in the schools. The Title VII project operates in Grades 3 and 4 and is now (1975-76) a demonstration project. The total number of schools in the project is two (School A and School B), serving approximately 200 students in need of bilingual instruction, in eight classrooms. (Those students who are not involved in the Title VII project and who are in need of intensive English as a Second Language [ESL] instruction are being served in remedial Title I resource rooms.) Project students come from families with an average annual income of from $4,000 to $6,000 with a high percentage qualifying for the free-lunch program.

The city which the District serves is small and urban. Approximately 57% of the families in the school attendance area are monolingual English speakers and 43% are Spanish/English bilingual. The target population is split between Mexican-American and white non-Hispanic; a small percentage of blacks, however, do participate. According to the principal there is approximately 35% turnover yearly.

Goals and/or Objectives

The major goal is to enable students of limited English-speaking ability to progress effectively through the overall educational system. The student is offered instruction in Spanish Language Arts/Reading, and the approach used for Mathematics instruction is bilingual; however, proficiency in English is of primary concern at the district level.

Project Staff

The project is staffed by one project director, eight teachers, eight classroom aides, sixteen volunteers, one district psychologist, two district learning disabilities teachers, one district media-development specialist, one project school/community liaison, and one project secretary.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study		
Total number of questionnaires received	8	4
Highest earned college degree:		
No degree		3
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	5	1
Teaching credential only		
M.A. or higher	3	
No response		
Type of state teaching credential held:		
Non-credentialed		4
Temporary, provisional, partial-fulfillment, or emergency		
Regular credential	4	
Bilingual-bicultural teaching credential	4	
No response		
Years of full-time teaching experience:		
Less than 1 year		1
1 year		
2 years	2	
3 years	2	
4 years	1	
5-9 years	1	1
10-19 years	1	
20-29 years	1	
30 or more years		
No response		1

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	2	1
1 year	2	
2 years	1	
3 years		
4 years		1
5 years		1
More than 5 years		
No response	3	
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		1
6-15 quarter units (4-10 semester hours)	3	1
16-30 quarter units (11-20 semester hours)		
More than 30 quarter units (more than 20 semester hrs.)	1	
No college training in bilingual-bicultural	1	2
No response	2	
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days	2	
15-30 days		2
More than 30 days	3	1
None	1	1
No response	2	

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$101,123.50	
Other Federal and State	-0-	
Other	-0-	
TOTAL	$101,123.50	
• Per pupil		$181.55

In addition to the above, the following funds were designated for bilingual project schools:

School A		
Federal and State	$71,820	
Other	-0-	
TOTAL	$71,820	
• Per pupil		$140.00
• Total per pupil additional funds for bilingual project participants		$321.55

School B		
Federal and State	$86,660	
Other	-0-	
TOTAL	$86,660	
• Per pupil		$140.00
• Total per pupil additional funds for bilingual project participants		$321.55

CLASSROOM INFORMATION

Major Features of Classrooms Observed

- The aide in the third-grade class was responsible for small group instruction in Spanish as a Second Language. Communication skills between peer group members were emphasized. The aide developed a variety of Language Arts board games that included extensive vocabulary and basic sentence structures drills.
- An appreciation of both Hispanic and non-Hispanic cultures was reinforced in the classrooms by the third- and fourth-grade teachers and aides. Culture was emphasized through arts and crafts projects and music. A sense of comradeship between peer-group members of both cultures was reflected strongly in bilingual group discussions about customs, traditions, and values. The celebration of holidays and festivals in both cultures was emphasized strongly.

Impact Study Sample

Out of a total of twenty-eight schools in the District, two were operating under Title VII in 1975-76. In one of the project schools, third- and fourth-grade classrooms were selected at random for observation. The following information was gathered from interviews held with personnel at the school and classroom levels as well as from observations of the treatments used in the classrooms selected at random for the Intensive Study Sample. The students in the third- and fourth-grade classes observed were grouped across grade levels according to language proficiency (Spanish and English) and ability. The two teachers and aides teach the same materials and send some groups of students to each other for the content areas of English Language Arts/Reading, Spanish Language Arts/Reading, and Mathematics.

The total enrollment of this combined classroom is forty-six students. The ethnic composition is twenty-six Mexican-Americans, four black Americans, and sixteen white non-Hispanics. The two teachers and two classroom aides are bilingual and of Hispanic descent.

Instructional Strategies for Grades 3 and 4

English Language Instruction for Native-Spanish Speakers

English as a Second Language (ESL) is taught for twenty-five minutes daily to a group of twelve students. The approaches used are bilingual instruction and direct translation of materials from Spanish to English. Emphasis is placed upon pronunciation, sentence pattern, sentence completion, vocabulary expansion drills, and teacher-produced written and oral exercises. There are no major textbooks for ESL, although reference materials such as word games and role playing aparatus are available in the classroom. The use of Spanish is minimal.

English Language Instruction for Native-English Speakers

English Language Arts and Reading are taught as one unit of instruction for eighty-five minutes daily. Approximately ten to twenty-five minutes is spent daily on new concepts and practical application. Emphasis is placed upon capitalization, punctuation, spelling, grammar, creative writing, nonfiction writing, and penmanship. These same areas of concentration are reinforced in the Reading program daily. The major Reading series used is Distar, which is an oral/silent reading program based on simple phonetic sound-symbol relationships and comprehension games, drills, and written exercises. Words in the short passages are phonetically spelled, and the student learns to transcribe symbols into English spelling patterns for written exercises. Follow-up workbooks are used to supplement the development of oral reading skills and comprehension (memory, recall, inference, and sequencing of ideas). The material covered in the series encompasses History, Art, Social Studies, Geography, and Science. Approximately sixty minutes daily are spent on Reading. The teachers have supplementary materials in the classroom for enrichment purposes and use the blackboard as the major instructional material.

Spanish Language Instruction for Native-English Speakers

Spanish as a Second Language is taught for twenty-five minutes daily to a group of fourteen students. Emphasis is placed on the mastering of basic communication skills (vocabulary expansion, conversation, and dialogue) to enable the students to converse with peers and to function in a bilingual situation. Grammar, Reading readiness, and basic comprehension skills are an integral part of the program but are not of primary concern. No major textbook is used to teach SSL. Instruction is given by the classroom aides at the same time SLA/Reading is taught to the native-Spanish speakers by the teachers. Instructional materials (drills and exercises) and games are teacher-developed. The students receiving SSL instruction do not participate in a formal Spanish Reading group.

Spanish Language Instruction for Native-Spanish Speakers

Spanish Language Arts and Reading instruction take place for approximately one hour daily. Students are grouped according to language proficiency. (At the time of the classroom observation, both groups in grades 3 and 4 were working at the same reading level.) Approximately fifteen minutes daily are spent on grammar, punctuation, spelling, and capitalization; fifteen minutes on oral language skills; and thirty minutes on the development of comprehension skills, practical application of language arts concepts, and phonics. The major textbooks used are La Primera Fonetica and Lectura Espanola - 2. Teachers and aides have developed games, exercises, drills, and experience charts to supplement such instruction. At times the class breaks up into smaller groups, based totally upon need. Individualized instruction is then implemented by the classroom aide. There is no Reading textbook in Spanish.

Mathematics Instruction

Students are grouped according to ability levels. Emphasis is placed upon the principles of addition, subtraction, multiplication, division, fractions, measurement, time/weight, geometry, and new math. Instruction is in English and based upon need, students receive individualized instruction in Spanish with the classroom aide. Approximately one hour a day is spent on concepts and twenty-five minutes on practical application. The teachers have developed materials, such as games, oral drills, and exercises, to supplement instruction. The major textbook series used is Distar.

Cultural Component

Students do not switch classrooms for Social Studies instruction. Culture is integrated into Spanish Language Arts/Reading. Upon occasion, Social Studies includes a cultural perspective of Mexico, presented in Spanish, covering geography, history, holidays, famous people, and music. According to the classroom teachers interviewed, during Spanish Language Arts/Reading there is a good deal of student participation and sharing which reinforces the maintenance of the native language (Spanish), the Mexican-American values, and cultural heritage. The cultural component is not a separate unit of instruction.

Parent and Community Involvement

Parent participation is minimal. All parents confer at least twice yearly with the teachers in a formal setting at school; however, if this is an impossibility the teachers will visit with parents in their homes to discuss the student's rate of progress in the program. A low percentage of parents attend project- and district-sponsored functions, such as open houses or classroom parties which take place two or three times yearly.

PROJECT 16

PROJECT INFORMATION

Project Context and Target Population

Project 16 was initiated in 1971 in the two district elementary schools which are located about half a mile from each other. By the 1975-76 school year, there were eleven bilingual classes in the project. The enrollment for 1975-76 was 220. The student ethnicity figures are as follows: 75% Puerto Rican; 13% Cuban and Central and South American; and 12% white non-Hispanic.

The project is operating in an urban community two miles from a larger metropolitan city. The community is multiethnic with a population of approximately 35,000 inhabitants. Major ethnic groups include Irish, Italians, Puerto Ricans, Poles, and other Hispanic groups. The median income of the residents is $8,000, and the average level of education is the eleventh grade. Of all residents, 32% have completed high school.

The majority of families served by the schools are lower middle class. Parents earn from $6,000 to $8,000 annually and are generally unskilled workers.

Goals and/or Objectives

The bilingual project is a transitional one as mandated by the state. Its goals and objectives include the following:

- To build up the Spanish resource materials
- To assess and evaluate levels of language dominance and student achievement
- To strengthen English as a Second Language (ESL) instruction
- To build up a strong Spanish-language maintenance program
- To include more community involvement in the program
- To coordinate all school services better in order to meet the needs of the target schools

Project Staff

The project staff includes a new bilingual project director, a bilingual guidance counselor, a bilingual school/community liaison, a resource and materials specialist, and a bilingual secretary. In addition, there are two English as a Second Language instructors. Full-time teaching staff is composed of eleven bilingual teachers and eleven paraprofessional aides.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	4	4
Total number of questionnaires received	3	2
Highest earned college degree:		
No degree		
Degree or diploma based on less than 4 years of work		2
B.A. or B.S.		
Teaching credential only		
M.A. or higher	3	
No response		
Type of state teaching credential held:		
Non-credentialed		2
Temporary, provisional, partial-fulfillment, or emergency		
Regular credential	2	
Bilingual-bicultural teaching credential	2	
No response		
Years of full-time teaching experience:		
Less than 1 year		
1 year	1	1
2 years		
3 years		
4 years	1	
5-9 years	1	
10-19 years		1
20-29 years		
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	1	
1 year		
2 years		1
3 years		
4 years	2	1
5 years		
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		1
6-15 quarter units (4-10 semester hours)	1	
16-30 quarter units (11-20 semester hours)	1	
More than 30 quarter units (more than 20 semester hrs.)	1	
No college training in bilingual-bicultural		1
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days		1
15-30 days	2	
More than 30 days	1	1
None		
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$136,130	
Other Federal and State	6,000	
Other (Private Foundation)	-0-	
TOTAL	$142,130	
● Per pupil		$646.05

In addition to the above, the following funds were designated for bilingual project schools:

School A		
Federal and State	$126,850.14	
Other	-0-	
TOTAL	$126,850.14	
● Per pupil		$142.69
● Total per pupil additional funds for bilingual project participants		$788.74
School B		
Federal and State	$121,856.04	
Other	-0-	
TOTAL	$121,856.04	
● Per pupil		$152.70
● Total per pupil additional funds for bilingual project participants		$798.75

CLASSROOM INFORMATION

Major Features of Classrooms Observed

- A student is placed in the bilingual class after being assessed for language dominance.
- Teachers complete student checklists in order to maintain a record of student achievement.
- The pupil/teacher ratio is high; in each class there are eighteen students to a teacher and an aide.
- The Project Director works closely with the classroom teachers in order to assess problem areas and to coordinate the programs between both project schools.
- Since space is rather limited in the classrooms, a student coming into the school from another country has priority over a student enrolled in the classroom whose English may be better. Therefore, the student with the most need would stay or be placed in the classroom, while the other student would move to a regular classroom where only English is spoken.
- In both schools, ESL is provided on a pull-out basis. This ESL program is not highly organized or highly structured.

Impact Study Samples

Initially, four classrooms from grades 2 through 5 were randomly selected for testing in the Impact Study. Two classrooms were then randomly selected for detailed observation. They include a second grade from one school and a third grade from the other.

Instructional Strategies for Grade 2

Special Features of This Classroom

- This class is located in a school which has six bilingual classes.
- The teacher has a master's degree and a bilingual/bicultural credential. She has been with the project for four years and is bilingual.
- Nineteen students are enrolled, including ten Puerto Ricans, two Central American, two Cubans, four white non-Hispanics, and one South American.
- Major strategies including ability-grouping and grouping by language dominance.
- Individualized attention is given based on need.
- Peer-tutoring is done on a regular basis.
- There are colorful displays of students' work throughout the class.
- As a means of encouraging the others, the teacher has reading charts on which she puts the names of the students who have done extra work.

English Language Instruction for Native-English and Native Spanish Speakers

English Reading instruction is given three hours a week to seventeen Hispanic and non-Hispanic students. There are five ability-based groups. The four students in the lowest group are instructed in linguistic readiness by the classroom teacher. The four students in the next group are reading at the first-grade, first-semester level. They work independently and are tutored by their peers. The classroom teacher then reviews their work. Two students are reading at the first-grade, second-semester level. They receive instruction from another teacher. The five students in the next group are reading at the second-grade, second-semester level. Two students in this group are in the third grade but join this class for Reading. The last group contains two students who are students who are reading at the third-grade level. They receive instruction from another teacher.

During English Reading, the teacher reviews new vocabulary and definitions, asks comprehension questions, and has the students read aloud. She encourages them to do independent reading and maintains charts showing how much each child has accomplished.

Writing skills, including spelling, punctuation, and grammar, are emphasized in conjunction with work in the Reading books. The more advanced students do creative writing, and the teacher displays the student work as a means to encourage them. About 2 1/2 hours a week are spent in this area.

As a class, the students write poetry and perform in plays. They also listen to stories, which the teacher sometimes dictates to them.

English Language Instruction for Native-Spanish Speakers

Nine students, two of whom are bilingual and the remainder Spanish monolingual, are receiving ESL instruction 3 3/4 hours a week. The ESL teacher follows the total-immersion approach using only English in the class. She works on students' pronunciation and drills them on sentence patterns, vocabulary building, and questions and answers. She uses a variety of games to make the class interesting.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

Spanish Reading is taught approximately 3 1/2 hours each week. Students are grouped by ability. There are five groups, three of which are taught by the aide and the other two, the highest groups, by the classroom teacher. One student is beginning to read and works on a Reading chart with the aide. The rest of the students work on different levels in the Santillana series, which includes a workbook for writing. In the groups, the aide has the students read aloud and asks them comprehension questions. She also goes over vocabulary with them. In the lower groups, she works on sound discrimination using pictures and other visual aids.

Written work is done in conjunction with Reading, and the students spend ten to twenty minutes each day in this area.

Mathematics Instruction

Mathematics instruction is given forty-five minutes each day in Spanish and English. The students are instructed as a group and move at their own pace. The textbook being used is entitled Exploring Elementary Mathematics. After each unit, the students must take a test. If they get 100% correct, they can move on to the next unit. The teacher uses locally produced dittos. If the students have problems, the aide or the teacher will help the students with the translation.

Cultural Component

Social Studies is taught twice a week. Each session is about one hour, but the time varies according to the subject matter. The curriculum includes Art, History, and both Latin American and North American music. In class, discussions on famous people and holidays are held. The class participated in the school festival held on Puerto Rican Discovery Day.

Instruction Strategies for Grade 3

Major Features

- This class is located in a school which has four other bilingual classrooms.
- The project office is located in the school, and the Director has been working closely with the classroom teacher, assisting her in organizing the instruction to best meet the needs of the students.
- There are eighteen Puerto Ricans and three white non-Hispanics enrolled in this class.
- Teaching strategies include small-group, individualized instruction based on ability and language dominance.

- The aide works primarily with the Spanish monolingual students in the areas of Spanish Reading and Mathematics.
- Students spend a great deal of time working on locally produced exercise sheets. These are corrected on an individual basis by the teacher and/or aide.

English Language Instruction for Native-Spanish and Native-English Speakers

The basic strategy for teaching English Reading and writing is to group students according to ability. There are five Reading groups that do their written work in conjunction with their textbooks. The top group (five students) receives about eight hours of instruction a week, including phonics, reading aloud, Reading comprehension, creative writing, grammar, and spelling. The three remaining groups (five students, five students, and two students, respectively) are composed primarily of Spanish-monolingual students. They work on Reading, phonics, and vocabulary building and write in their vocabulary skills book. They receive from 3 3/4 to five hours of instruction a week. There are three students who are just learning their phonics, and this group works with the aide. All students with the exception of the top group receive ESL instruction.

The class works as a whole with skits, sharing, and vocabulary building.

During the time the observer was on site, the ESL teacher was being replaced by the materials specialist, and no observations were made.

Spanish Language Instruction for Native-Spanish Speakers

The class is divided into three groups for Spanish Reading which is taught by the aide. Instruction is given 3 3/4 hours each week. The two top groups are reading Conozcamos a Puerto Rico and use a supplementary workbook. The slow group is reading at first-grade level. They do primarily oral work which consists of answering Reading comprehension questions and reviewing phonics. For written work, the teacher and the aide prepare worksheets which are appropriate for the different groups.

The language of instruction is Spanish. No second-language instruction is given in Spanish to the English-monolingual students.

Mathematics Instruction

Mathematics is taught to the entire class on an individual basis, although concepts are introduced to the group as a whole approximately fifteen to thirty minutes each week. Both the teacher and the aide teach this subject area. They give the students four or five locally produced worksheets to complete each day and then correct them. The teacher has a checklist of what each student has done. This class is instructed bilingually and the amount of time allotted for instruction is 3 3/4 hours a week.

Cultural Component

Social Studies is part of the regular curriculum. The textbook which is used is based upon North American culture with a more universal concept-oriented focus. Although information about Hispanic culture is taught, it is primarily emphasized as the occasion arises. About forty minutes a week are spent in this subject area. The class is taught bilingually.

Parent and Community Involvement

In the third grade, parental involvement is low: two parents have joined the class for field trips three times this year; and two parents have attended parent/teacher conferences.

There is some parent involvement in the second grade class. Three to four parents have come for class parties, and one or two go on field trips with the class. Four or five parents have participated in parent/teacher conferences.

PROJECT 17

PROJECT INFORMATION

Project Context and Target Population

Project 17 is located in one of the largest metropolitan areas of a state which lies along the Mexican border. With a population of nearly one million, this city is strategically central to an economic region which is rapidly expanding. The majority of the population is English-speaking; however, many Mexican-Americans have migrated from other states and from Mexico for employment opportunities. The move from an environment that is primarily Spanish-speaking and/or bilingual to a metropolitan center, where the population is primarily English monolingual, places heavy demands on Mexican-American students to learn English. The number of Mexican-American students in this city is as great as, or greater than, the number in other cities which are typically Mexican-American. The city has the state's fifth highest Mexican-American population. School enrollment for Mexican-American students was 18,426 in 1974. In a recent Title VII project report, Mexican-American students were shown to rank more than thirty percentile points below their white non-Hispanic peers. This poor academic achievement record persists from kindergarten through high school. In order to ameliorate this problem, Project 17 was initially funded in 1971-72 with project operation in ten schools (eight public and two parochial schools). However, during the 1975-76 school year, the project changed format. Seven schools which had largely comprised the Title VII program shifted to bilingual education funded under Title I. One school dropped completely from Title VII and did not receive Title I funding, thus leaving only two in the project.

A model demonstration classroom project was designed for operation during the 1975-76 school year. In addition to the two former Title VII schools, Schools A and B, ten new schools were incorporated. Therefore, the project operated in twelve schools (ten public and two parochial schools) in kindergarten through grade 5, serving 1,386 students in fifty-nine classrooms.

Goals and/or Objectives

The major thrust of the District's bilingual project is to develop a positive self-image, enhance concept development, and promote functionality in two languages--English and Spanish--in all students. Therefore, it provides a "maintenance" bilingual project through the fifth grade. Since the city has yet to mandate bilingual education beyond this grade level, once the student leaves the program he/she enters a regular English program.

The stated objectives of the project are the following:

- To develop and implement curricula in English and in Spanish that will allow the student to acquire concepts in the language he/she understands best
- To develop a cadre of highly trained personnel in bilingual education that will grow in understanding of and empathy with the sociocultures of all students
- To encourage the participation of parents from the target schools in the total bilingual project.

With the exception of Schools A and B which have continued to operate the bilingual project in kindergarten through grade 5 as well as to provide demonstration classrooms in grades 4 and 5, respectively, the other schools have implemented bilingual instruction in specific grade levels. That is, bilingual demonstration classrooms operate in the following schools: kindergarten in Schools C and D; first grade in Schools E and F, second grade in Schools G, H, and I; and third grade in Schools J, K, and L.

Essentially, the model demonstration classroom format varies among schools on two dimensions, the distribution of time by subject area and the use of particular curriculum packages. Language Arts, Mathematics, Social Studies, and Science are taught in all grades. For one cluster of schools (Schools G, E, C, H, D, and I), Language Arts is taught for 1 1/2 hours a day in English using state-adopted textbooks and in Spanish using a state-adopted language instructional package entitled Rock and Roll. Within this period, thirty minutes are designated for instruction, with the remaining time being given to individualized instruction activities. In Mathematics, 1 1/4 hours a week are allotted to small-group instruction using state-adopted materials and 1/2 hour a week, using district materials. Social Studies is given 1 1/2 hours a week in small-group instruction using state-adopted materials and 1/2 hour a week using district materials. In Science, students are instructed in small groups for one hour a week using state-adopted Science materials and for 1/2 hour a week using district materials.

The format for other clusters remains essentially similar. For Schools L, K, and J, the instructional time increases. In Language Arts two hours each day are equally distributed in small-group instruction and individualized instruction activities, 1 1/2 hours a week are assigned to Mathematics, 1 3/4 hours a week to Social Studies, and 1 1/2 hours a week to Science.

In Schools A and B, there again exists a variation in time allotments. Language Arts is taught two hours each day using state-adopted materials and district-developed materials. Small-group instruction is given for one hour with fifty-five minutes assigned to individualized instruction activities. Time allotments for the other subject areas include Mathematics, 3 1/4 hours a week; Social Studies, 2 1/2 hours a week; and Science, 1 1/4 hours a week.

Small-group instruction is provided in order to meet the individual academic and linguistic needs of students. The variations in time allotments largely follow state requirements for particular grade levels. Furthermore, flexibility is an integral component in scheduling these subject areas since there are diverse teaching approaches occurring across all schools. Team-teaching, self-contained classes, non-graded fields, and modified broad fields are all considered acceptable approaches within the District.

Of considerable impact to bilingual education, however, is the assistance given to the classroom teachers, the majority of whom are bilingual, by the bilingual resource teachers and the bilingual teacher aides. In all demonstration classrooms, a bilingual resource teacher and a bilingual teacher aide assist the regular classroom teacher during some part of his/her instructional program.

Project Staff

The bilingual project staff consists of the following personnel: fifty-nine full-time classroom teachers who are paid out of State Minimum Foundation funds; twelve full-time teacher aides; eight full-time resource teachers;

two full-time school/community visiting teachers; two school/community liaisons; two secretaries; two full-time evaluators; one full-time administrative coordinator; and the full-time Project Director. As of the 1975-76 school year, sixteen of the classroom teachers and the majority of the teacher aides had been with the project for three or more years. Of the support personnel, with the exception of three staff members, all have been with the project for a maximum of three years. In the project's classrooms, thirty-seven classroom teachers are bilingual and thirty-two are Hispanic. All other project staff members are bilingual, and all but two are Hispanic.

Given the change in testing priorities for the spring, only four classrooms (including two comparison classrooms) were chosen. The two bilingual classrooms were sampled from those schools that had participated in the program from its inception. Therefore, the data gathered from questionnaires distributed to the teachers provide only minimal information on the quality of the teaching staff. Both bilingual teachers hold M.A. degrees and bilingual/bicultural teaching credentials. Overall, both teachers have taught for more than five years but specifically in the bilingual project for an average of three years. In addition, both have attained an average of thirty quarter units of college training in bilingual/bicultural education and have attended at least thirty days of inservice or school district workshops specifically devoted to this area. Unfortunately, information on all the teacher aides was not available.

The bilingual project has involved sixty of its staff members in a master's degree program. In addition, the state has supported city-wide bilingual education by providing Spanish language courses for two hundred monolingual teachers to prepare them for bilingual certification through universities in the state.

Other special training at the district level which affects the Title VII program is provided through preservice workshops held prior to the opening day of classes and inservice workshops held twice a month during the entire school year. The District's school board is regarded as generally supportive of bilingual-bicultural education in the school system.

In addition to teacher salaries and program materials, the state has implemented Senate Bill 212, which requires bilingual certification for teachers participating in bilingual programs. In addition, the Lau Center has offered assistance in the implementation and the interpretation of the Lau Decision.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	4	4
Total number of questionnaires received	3	1
Highest earned college degree:		
No degree		1
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	1	
Teaching credential only		
M.A. or higher	2	
No response		
Type of state teaching credential held:		
Non-credentialed		1
Temporary, provisional, partial-fulfillment, or emergency		
Regular credential	1	
Bilingual-bicultural teaching credential	2	
No response		
Years of full-time teaching experience:		
Less than 1 year		1
1 year		
2 years		
3 years		
4 years	1	
5-9 years	2	
10-19 years		
20-29 years		
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year		1
1 year		
2 years	1	
3 years		
4 years	1	
5 years		
More than 5 years		
No response	1	
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		
6-15 quarter units (4-10 semester hours)		
16-30 quarter units (11-20 semester hours)		
More than 30 quarter units (more than 20 semester hrs.)	2	
No college training in bilingual-bicultural		1
No response	1	
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days		
15-30 days	1	
More than 30 days	1	
None		1
No response	1	

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$ 463,000
Other Federal and State	-0-
Other	-0-
TOTAL	$ 463,000

- Per pupil $ 334.05

In addition to the above, the following funds were designated for bilingual project schools:

Federal and State	$ 1,680*
Other	-0-
TOTAL	$ 1,680

- Per pupil $ 22.70
- Total per pupil additional funds for bilingual project participants $ 356.75

*This figure does not include federal Title I funds received by the district, other than those specifically designated for the bilingual education project. Thus, the total per-pupil cost underestimates the actual cost situation.

CLASSROOM INFORMATION

Major Features of Classroom Observed

- This is a model demonstration classroom.
- Teaching is individualized, even when no aide is available.
- English Language Arts is taught by the total-immersion method.
- There is no Spanish as a Second Language program.
- The Mathematics resource teacher uses a systematic assessment program.

- The Mathematics resource teacher speaks no Spanish, and uses a student to translate her lessons for the Spanish-dominant students.
- The classroom teacher is white non-Hispanic. She is fully bilingual, although not a native Spanish-speaker.
- The teacher aide is a bilingual Hispanic and is shared by several classrooms.
- The class consists of twenty-four students: twelve are bilingual, nine are English-dominant and three are Spanish-dominant.

Impact Study Samples

The target school is located in a low-income community where the predominant occupation of families involves semiskilled work. The housing pattern consists primarily of single units on small lots. There are a small number of property owners, and the mobility rate of students in the school ranges between 10% and 20%. The student population numbers 503 with the following ethnic distribution: 47% Mexican-American, 25% white non-Hispanic, 22% black, 2% Asian, and 4% other. Although the dominant language spoken at school is English, the majority of community members are considered bilingual (either English/Spanish or English/other).

Initially, sixteen classrooms from grades 2 through 6 were randomly selected for testing in the bilingual Impact Study. Fourteen of these classrooms had been recipients of Title VII funding through June 1975, but because of the re-allocation of funds for bilingual education in the city, they became Title I bilingual classrooms during the 1975-76 school year. They were tested in the fall even though they were no longer Title VII classrooms because arrangements had already been made with the District. However, after a re-examination of testing priorities for the District and the Study, it was decided that these classrooms should no longer be tested since they were no longer in the Title VII project, nor would they qualify as comparison classrooms. Therefore, two fourth and fifth grade classrooms from those schools involved in Title VII since its inception were tested in the spring. The originally selected comparison classrooms in those particular grade levels were also tested. Taking this into consideration, a random selection of the two bilingual classrooms was made for on-site observation. Therefore, the following information describes only one classroom at one grade level.

Instructional Strategies for Grade 4

English Language Instruction for Native-English and Native-Spanish Speakers

Grouping for Reading instruction is based on the previous year's Reading achievement level and on the results of a diagnostic instrument. Essentially, there are three Reading groups: the top group (grade 4 Reading level), with eleven students; the middle group (grades 2 and 3 Reading level), with seven students; and the low group (grade 1 Reading level), with five students. Two students leave the classroom during Reading instruction: one receives special instruction from the resource teacher, and the other goes to another classroom for Reading on her grade level.

English Language Arts is taught for two hours, three days a week. In English Language Arts, instruction during the first thirty minutes is given to the entire class. The instruction will include one of the following: capitalization, punctuation, spelling, grammar, phonics, or creative writing. The remaining 1 1/2 hours are devoted to Reading instruction with the three Reading groups rotating for direct instruction with the teacher. Although there is a bilingual aide, she works in several classrooms. Therefore, her time spent in this particular classroom is quite limited. She spends exactly thirty minutes a day in the classroom working individually with students in the low Reading group. Even on those days assigned to Spanish Language Arts, she devotes her period to reinforcing English Reading skills with those same students. It should be noted that she supplements the teacher's regular instruction with that group.

The teacher devotes approximately one hour of direct instruction each week to each Reading group. This instruction consists of oral and silent reading, reading comprehension, and library work. While the teacher is working (one day a week) directly with one group, the other two groups are working independently on Reading or on written assignments which will include follow-up work from the first period. Approximately 3 1/2 hours are spent each week by each group in independent activity. A student is rarely moved from one group to another, and only on the basis of the teacher's evaluation of the student's work.

Other components of oral Language Arts such as plays, poetry, skits, storytelling, and formal sharing periods are pursued much less frequently. Generally, two hours a month may be assigned to these other areas. However, these components are dealt with informally or incidentally during the instructional Reading period and, therefore, are not totally ignored.

Instruction during the English Language Arts period is given only in English. Spanish is allowed only when necessary. In the teaching of English Language Arts, the teacher utilizes certain techniques characteristic of English as a Second Language (ESL), primarily with the low group. However, there is no formal ESL program in operation. The majority of students are bilingual or English dominant with only one Spanish-dominant student in the classroom.

Evaluation of the students' progress in English Language Arts is done in two ways: a standardized Reading test (Illinois Test of Basic Skills) is given at the beginning and at the closing of the school year, and the weekly observation of students' achievement is made for the determination of grade reports to parents.

In addition to the students' basic instructional texts, a wide variety of instructional materials including charts, games, and flashcards are utilized. For Reading instruction, the Houghton Mifflin series (textbook and workbook) is utilized with the top and middle groups. Supplementary books have been employed with the lowest Reading group which is functioning on a first-grade Reading level. Although the Soto Tutorial Program Kits had been bought for classroom implementation, this had not occurred during the period when classroom observation took place. Basic Goals in Spelling 3 is an additional textbook utilized for English Language Arts.

In addition, television, filmstrips, cassettes, transparencies, and movies are used by the teacher in the instruction of English Language Arts.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

Students are grouped for Spanish Language Arts on the basis of the previous year's achievement and the teacher's judgment. There are four groups: (a) one with three students in Del Campo al Pueblo (Laidlaw) and one working semi-independently in Nuestros Amigos; (b) one with six students reading in Aprendemos a Leer; (c) one with four students in Camino a la Escuela; and (d) one with nine students receiving Spanish as a Second Language (SSL) instruction from the bilingual resource teacher. One student is pulled out for special instruction with the resource teacher. Groups have remained fairly stable during the year. Students will move from one group into another on the basis of the teacher's judgment and observation of the students' work.

A two hour block, twice a week, is allocated to Spanish Language Arts. With the exception of the oral language components, all instruction is done with small groups.

A thirty minute period of instruction is given to each group. During this period, lessons on English grammar, spelling, and mechanics (capitalization and punctuation) are integrated with the Reading content which includes oral reading, phonics, and reading comprehension. Primarily, follow-up written work in these various areas is completed during the independent activity period which is three hours a week. The teacher rotates the three Reading groups. The bilingual resource teacher pulls out the SSL group and works with that group for approximately 1 1/2 hours each day on numerous Spanish Language Arts activities, both written and oral. The bilingual aide reinforces the English language skills the slowest English-reading students are being taught. She provides individualized attention to those students working independently of the teacher. A formal oral language component consisting of plays, poetry, storytelling, and/or sharing is provided for at least two hours during the month. As was true of English Language Arts, there are many occasions during the regular instruction when these are touched upon only incidentally.

Instruction during the Spanish Language Arts component is done in both languages. Other than a small amount of Spanish as a Second Language instruction offered by the resource teacher, there is no SSL program. Evaluation of students' progress is made by the teacher each week through the careful observation of the students' work. The teacher enriches her instructional program with a number of audiovisual devices such as filmstrips, transparencies (for overhead projector), records, and cassettes. The Laidlaw series, textbook and workbooks, is the primary instructional program in addition to exercise sheets, charts, games, and flashcards which the teacher has developed to reinforce Reading skills.

Mathematics Instruction

For this component, students move to another classroom for instruction by a different classroom teacher. Primarily, this is given to the entire class for an hour each day. However, the teacher does group students according to their academic needs when a specific area has been introduced. But this has varied across all the areas presently covered: addition, subtraction, multiplication, division, fractions, percentages, and the metric system.

Since this teacher is monolingual, instruction is given only in English. There is no aide in the classroom during this particular period. But for those students who are Spanish dominant, the teacher allows another student to translate during the individualized instruction period she provides after the initial lesson. This is given during the first fifteen minutes of each period. Thereafter, independent work is assigned and group instruction is initiated by the teacher. A criterion-referenced diagnostic Mathematics test is given twice during the school year for the purpose of assessing the students' mastery of certain areas in Mathematics. The teacher has developed tests to assess the students' progress on a bimonthly basis. The results provide her with information by which she can revise her curriculum goals. A grade report based on additional tests is also made every six weeks to the parents. In addition to the basic text, Modern School Mathematics (Houghton Mifflin), the teacher utilizes the following audiovisual aids: records, transparencies, and movies. Games, flashcards, charts, and exercise sheets are other instructional materials the teacher presents to extend mathematical concepts and skills.

Cultural Component

Hispanic culture is integrated with the teaching of Social Studies which occurs twice a week for two hours. Typically, a cultural lesson is taught in connection with a special holiday. The activities the students may participate in include art, cooking, folk dancing, and music as well as lessons on geography, history, legends, significant events, and famous personalities. Instruction is given to the entire class in both languages by the regular classroom teacher. Curriculum units are provided by the Title VII office.

Parent and Community Involvement

Since one of the major objectives of the program involves parental participation in teaching and learning activities, program monitoring, and community understanding of program goals, the structures that exist to facilitate this process are the "Merienda" (parent meetings), "El Quiosco" (media center), Volunteer Program, and the community advisory committees.

The Quioscos are implemented in each school for the purpose of developing a community/school workshop program. Parents are organized under the direction of the local school/community liaison to assist the classroom teachers in two ways: constructing instructional materials and/or working in the classroom. The Quioscos have been established in twenty-five schools, both Title VII and Title I. Meriendas, or parent meetings, are held once a month in the Quioscos to inform the community on the status of bilingual education and to select community members for the school's Bilingual Advisory Committee. The Central Bilingual Advisory Committee has representatives from twenty-nine schools. Members of this committee are selected for participation in a district-wide Mexican-American Advisory Committee, which is not funded by Title VII but functions in an advisory capacity to the school board, and which represents the entire Mexican-American community in the city.

For the class that was visited and described previously, involvement has taken the form of parent-teacher conferences, either by phone or in meetings with the majority of the parents. There have been two school programs, each attended by five or six parents. There are three of four parents who participate in the Advisory Council meetings each month. One parent taught a lesson on the flag at the beginning of the year, and at least one parent has accompanied the class on each of the two field trips they have taken this year.

The teacher explained that although there is a Quiosco at the school, she has not requested its services since it would require additional time to prepare for that effort.

PROJECT 18

PROJECT INFORMATION

Project Context and Target Population

Project 18 began in 1970. During the 1975-76 school year, 540 project students from kindergarten through grade 5 attended five different elementary schools and were placed in eighteen different bilingual classrooms. Although students attending school in the hills area are often of a higher socioeconomic status, bilingual project students come from families with an average annual income of $8,000 who live in flat-land urban areas where single-unit dwellings on small lots are interspersed with factories, a cannery, and a major freeway. The target population of Project 18 includes approximately 50% Spanish-surname students, 25% black students, and 25% white non-Hispanic students. According to the two principals interviewed, mobility rates in their schools were 4% and 47%.

Goals and/or Objectives

Project 18 is one of four bilingual projects that form and are funded through a consortium. The goals and objectives of these projects are therefore quite similar and include the following:

- To increase Reading and Mathematics skill levels using English and Spanish as languages of instruction
- To instill in project students a feeling of pride in their culture through bicultural and multicultural activities
- To help project participants and their parents develop a better understanding of the educational system by improving communication between the home and the school
- To provide a site where observers may watch a maintenance-type bilingual program in action
- To avoid costly duplication by participating with the other consortium projects in staff development, curriculum development, media production, testing and evaluation, dissemination, and community involvement activities

Project Staff

The project is staffed by eighteen full-time teachers, eighteen full-time aides, one full-time resource teacher, one full-time school/community liaison, and the full-time Project Director. In addition, the project enjoys the services of district support personnel and occasional school site volunteers. During the 1975-76 school year, fourteen of the teachers and eight of the aides had been with the project for three or more years. All project staff are bilingual (Spanish-English), and all but two teachers on the staff are Hispanic. The services of a full-time bilingual media center staff and a full-time bilingual evaluator are also shared by all the sties in the consortium.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	4	4
Total number of questionnaires received	4	4
Highest earned college degree:		
No degree		2
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	4	2
Teaching credential only		
M.A. or higher		
No response		
Type of state teaching credential held:		
Non-credentialed		1
Temporary, provisional, partial-fulfillment, or emergency		1
Regular credential	4	
Bilingual-bicultural teaching credential		
No response		
Years of full-time teaching experience:		
Less than 1 year		
1 year		
2 years		1
3 years	1	1
4 years		
5-9 years	1	1
10-19 years	2	1
20-29 years		
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year		1
1 year		
2 years	2	
3 years	1	1
4 years		
5 years	1	2
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)	1	1
6-15 quarter units (4-10 semester hours)		
16-30 quarter units (11-20 semester hours)	1	
More than 30 quarter units (more than 20 semester hrs.)	1	2
No college training in bilingual-bicultural	1	1
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days		2
15-30 days	1	1
More than 30 days	3	1
None		
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$116,000
Other Federal and State	-0-
Other	-0-
TOTAL	$116,000

- Per pupil $215.00

In addition to the above, the following funds were designated for bilingual project schools:

School A

Federal and State	Total N.A.
Other	-0-
TOTAL	-0-

- Per pupil $582.00
- Total per pupil additional funds for bilingual project participants $797.00

School B

Federal and State	Total N.A.
Other	-0-
TOTAL	Total N.A.

- Per pupil $202.00
- Total per pupil additional funds for bilingual project participants $417.00

At schools visited, the average annual per/pupil cost (including the funds listed above) ranged from $750 at one parochial school to $1,986 at one public school.

CLASSROOM INFORMATION

Impact Study Samples

The information included here is based on discussions with project staff and on classroom observations in one of the project's five second-grade classrooms and the project's only fourth- and fifth-grade combination class.

Instructional Strategies for Grade 2

Major Features

- The aide in this classroom specialized in creating colorful laminated board games for use in Language Arts and Mathematics instruction. Since the games include no written language, they are used for presenting lessons in English and Spanish.
- The classroom teacher conducted several informational meetings for parents during the 1975-76 school year. He designed an informational meeting to familiarize parents with new math techniques and a workshop to show parents how they might make addition and subtraction games with their children in support of the regular school program.

English Language Instruction for Native-English Speakers

In this classroom, seventeen native-English speakers are grouped according to reading ability and teacher-observed language skill levels. Students in the lowest Reading group work daily with the classroom aide and spend approximately 1 3/4 hours a week on capitalization, punctuation, and spelling; thirty minutes a week on choral reading activities; and 2 3/4 hours a week on Reading comprehension and phonetic decoding skills. Three students in this group work an additional two hours a week with a Title I Reading Specialist. During this time they use programmed learning machines and work with Sullivan materials.

Students in medium- and high-ability Reading groups spend a total of 3 1/2 hours a week working on English Reading and writing skills with the classroom teacher and the aide. Included in this time are grammar, creative writing, and nonfiction writing activities not covered by the lower group.

Students in all English language groups visit the library for thirty minutes every week. In addition to reading from their library books, all Reading groups use books from the Harper & Row series and Language Arts games developed by the classroom aide.

English Language Instruction for Native-Spanish Speakers

The classroom teacher spends approximately thirty minutes a day working on oral language drills with beginning English speakers. These drills are designed to help students learn English words for everyday vocabulary such as names of fruits, vegetables, and parts of the body. Students also practice following directions given in English and answer questions about stories read to them in English. By about February, those students who show readiness are also introduced to reading using Harper & Row preprimers. During this thirty-minute period, English is spoken exclusively.

Spanish Language Instruction for Native-Spanish Speakers

Early in the year, the classroom teacher grouped his ten native-Spanish speakers according to their Reading level in Spanish. The lowest level group now spends approximately 3 1/2 hours a week on capitalization, spelling, choral reading, phonics, and Reading comprehension activities in Spanish. Students reading at higher levels spend an additional forty-five minutes a week on grammar, creative writing, and nonfiction writing. All Spanish Reading groups are taught by the classroom teacher and use the Santillana Reading series, the Silabario Disney, and SENDA materials for supplementary work. The teacher also uses locally developed games to provide vocabulary enrichment.

Spanish Language Instruction for Native-English Speakers

Each day, the classroom aide provides thirty minutes of instruction in oral Spanish for seventeen English-dominant students. During this time, students hear and speak only Spanish unless English is absolutely necessary. The aide introduces the students to the English names of fruits, vegetables, and parts of the body using the games she developed and charts provided by the consortium. The aide's goal is to have these English speakers talking in complete Spanish sentences by the end of the year.

Mathematics Instruction

Depending on their language dominance, students spend one hour a day in either an English-language or a Spanish-language Mathematics group. During this hour, children are encouraged to use the language of their group unless a change is absolutely necessary. During the 1975-76 school year, students used Modern School Mathematics Structure and Use in either the English- or the Spanish-language version to cover addition, subtraction, fractions, measurement, and elementary geometry using a new-math approach. The teacher and the aide also used locally developed games to reinforce concepts presented in these lessons.

Cultural Component

During the 1975-76 school year, the teacher estimated that he and his aide spent about forty-five minutes a week on large- and small-group activities related to Hispanic culture. Students learned Hispanic games during English as a Second Language, Spanish as a Second Language, and physical education periods. They discussed famous people (e.g., Benito Juarez) and holidays (e.g., Cinco de Mayo) during Social Studies lessons, and they learned Hispanic songs and dances during Music instruction. In addition, students made tortillas, heard Aztec legends, and celebrated Chinese New Year with a school in the District where there are many Chinese-speaking students. During culture lessons involving the entire class, students use the language in which they feel most comfortable, and the teacher makes his presentations in both English and Spanish.

Instructional Strategies for Grades 4 and 5

Major Features

- Students receive nongraded, departmentalized instruction in Language Arts, Social Studies, and Mathematics. Although the students have a different teacher for each of these subjects, a Title VII aide accompanies the students from teacher to teacher.
- Students who need help in Mathematics receive daily tutoring from sixth-grade students.
- At this parochial school, Hispanic culture is often presented in conjunction with drawings, stories, and teacher presentations related to religious holidays and traditions.

English Language Instruction for Native-English and Native-Spanish Speakers

The teacher spends about 1 1/2 hours a week working with the entire class on capitalization, punctuation, grammar, poetry, storytelling, and sharing activities. Students then break into low-, medium-, and high-level Reading groups according to their scores on teacher-developed screening tests. In these groups, each student spends approximately three hours a week on reading, spelling, and nonfiction writing activities. Students in the lower groups receive additional phonics instruction and spend most of their time working directly with the teacher while students in the higher groups spend over one-half of their time working independently. All students use the Heath English Series, Roberts English Series, and readers from the Houghton Mifflin serires.

During English language instruction, the teacher and students use mainly English.

Spanish Language Instruction for Native-English and Native-Spanish Speakers

All students spend about thirty minutes a week doing Spanish-language word and picture sheets as a class. These sheets contain a sentence related to a picture. The students pick up the sense of the sentence by looking at the picture; read the sentence to themselves and to each other; rewrite the sentence several times; and then color the picture. For Reading instruction the students then divide into ability level groups of from one to nine students. The higher ability groups spend approximately two hours a week on Spanish Reading, writing, and oral language skills. The lower groups devote one hour a week to Spanish Reading, spelling, and grammar activities. The classroom teacher and the aide share responsibility for all Spanish language Reading groups, and they use Spanish or English as needed to facilitate instruction.

Spanish-language materials for this classroom are similar to those used in other consortium classrooms: Santillana readers and workbooks, SENDA supplementary materials, and games and charts distributed by the consortium.

Mathematics Instruction

Mathematics is taught predominantly in English although the bilingual project aide is available to translate explanations and word problems for students who need extra help. Students are grouped by grade level for Mathematics instruction and spend about 3 1/2 hours a week doing addition, subtraction, multiplication, division, measurement, and simple geometry problems. During about one-half of this time the students work independently. All students use the Addison-Wesley Mathematics series as well as Cuisenaire rods and other manipulative objects. During independent study time, several students who need special help are tutored daily by more advanced students.

Cultural Component

The Language Arts teacher estimates that her students spend about ninety minutes a week on cultural activities. These ninety minutes have included discussions of religious holidays, sharing of Mexican pottery and clothing brought in by the teacher and her students, and participating in a cultural dance group.

Parent and Community Involvement

All parents of students in the project confer at least once a year with their child's teacher. About 20% of the parents attend project- or district-sponsored open houses, potluck dinners, or classroom parties.

Each school site has an advisory committee composed of project parents that meets once a month to review project proposals and to provide input on teacher, community, and student concerns.

PROJECT 19

PROJECT INFORMATION

Project Context and Target Population

Project 19 began in 1971. The District serves a town with a population of about 2,500 and the surrounding rural communities. The town is situated about an hour's drive from the state capital and about the same distance from another town where a university is located.

The town is an artists' colony, a tourism center, and an old market center for the farming, ranching, and mining communities. The indigenous population of the area consists of an Indian community and the Hispanic community which has been in the area since the 17th century. The white non-Hispanic population is relatively new to the area.

The District has four elementary schools, one middle school, one junior high school, and one high school. The bilingual project involves all the district elementary schools and the middle school. A total of 1,009 students attend the thirty-nine bilingual classrooms.

Three of the elementary schools are located in small rural communities outside the town, and all the classrooms in these schools are bilingual with the exception of the sixth grades, which had not yet been encompassed by the project as of 1975-1976. School A and the middle school have both bilingual and non-bilingual classrooms at each grade level. The fourth-grade classrooms could be considered an exception to this, as these are taught in two "sections," each of which has a team including one bilingual teacher who is responsible for teaching Spanish to all students in the section.

Kindergarten through grade 5 are included in the bilingual project. However, not all grades are actually paid for with ESEA Title VII funds. Kindergarten, which is not state-mandated, is entirely financed by state and Early Childhood Education funds, is housed in a separate building, and is administered as a separate, non-school-district project. The project in grades 1 through 5 is administered by the Title VII Project Director (who also administers the kindergarten program), but some classrooms are designated as "state bilingual" program classrooms and others as Title VII classrooms. All first grades and second grades are considered state bilingual classrooms as are the third grades at Schools B and C. The rest of the classrooms are "Title VII." Thus, not counting kindergarten, of the thirty-nine project classrooms, eighteen are officially "Title VII" and twenty-one are designated "state."

It should be noted that all classrooms share the Project Director, curriculum coordinator, community liaison, internal evaluator, and the facilities of the Resource Center, all of which are financed with Title VII funds.

All students in the outlying school areas are automatically enrolled in bilingual classrooms as there are no alternative non-bilingual classrooms. At School A and the middle school, all entering students are enrolled in the bilingual classes up to the capacity of the classrooms. When these classes are filled, students are assigned to regular classrooms. Children may be placed in the non-bilingual classrooms by parental request.

About 85% of the population served by the bilingual project is of Hispanic descent. (These people do not consider themselves Mexican since the state's settlement had very tenuous ties with the Mexican government, even when it was part of that country. After Mexico's independence from Spain, internal problems prevented Mexico from taking an active role in the affairs of this northern outpost, and the region developed its own culture in relative isolation for hundreds of years.)

The outlying schools (Schools B, C, and D) serve mainly families living on small ranches. Cash incomes are not high (averaging $4,000 to $6,000 per family per year), but real incomes are higher since many families raise their own food and since housing costs on the ranchitos tend to be low. A mine is located north of School C, and most of the families at that school are employed as semiskilled mine workers.

In the town, employment is more varied, but incomes average about the same as in the country. The tourist industry is very important in the town, and many people are employed in the service sector. The middle school student body is made up of town children and children bused in from the countryside.

The project school principals all reported a very stable school population with at most a 10% turnover per year. The Hispanic families tend to stay in the area. The mobility among the white non-Hispanics (the minority group in this community) is higher since these families are often attracted by the beauty of this region but find it hard to make a living and to settle into the community. About half of the white non-Hispanic population changes over each year.

Goals and Objectives

The Title VII Program states several main objectives: to train teachers and paraprofessionals as bilingual educators, to educate parents and the community in the concepts of bilingual/bicultural education, and to acquire and develop bilingual teaching materials. Another objective concerns the goals for the students in the program. This is a dual objective of upgrading student self-image and of improving student achievement, producing students who can function in both English and Spanish.

The project does not state fixed goals in terms of classroom schedules or percentage of language usage at different grade levels. There is a flexible approach, and teachers are given freedom in planning their daily schedules and language usage around the needs of the students. The only guideline is that the project should be "bilingual from 8:30 to 3:30."

Project Staff

The full-time bilingual project staff consists of the Project Director, thirty-nine teachers (whose salaries are paid by the school district), nineteen classroom aides, a curriculum coordinator, two curriculum and materials development specialists (financed by a local endowment grant), and an internal evaluator. Thirty-eight of the thirty-nine teachers are bilingual, and thirty-six are of Hispanic descent. The average teacher has been with the project for almost three years. All the project aides are bilingual, and most are bicultural; most have been with the bilingual project for three to four years.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	8	8
Total number of questionnaires received	8	5
Highest earned college degree:		
No degree		3
Degree or diploma based on less than 4 years of work		2
B.A. or B.S.	5	
Teaching credential only		
M.A. or higher	3	
No response		
Type of state teaching credential held:		
Non-credentialed		4
Temporary, provisional, partial-fulfillment, or emergency	1	1
Regular credential	4	
Bilingual-bicultural teaching credential	3	
No response		
Years of full-time teaching experience:		
Less than 1 year		
1 year		
2 years	2	1
3 years	2	1
4 years	3	1
5-9 years		2
10-19 years	1	
20-29 years		
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	1	
1 year		
2 years	3	1
3 years	3	1
4 years	1	1
5 years		1
More than 5 years		1
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)	1	2
6-15 quarter units (4-10 semester hours)	2	1
16-30 quarter units (11-20 semester hours)	2	
More than 30 quarter units (more than 20 semester hrs.)	3	2
No college training in bilingual-bicultural		
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less	1	
2-15 days	5	1
15-30 days	1	3
More than 30 days	1	1
None		
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$126,000	
Other Federal and State	126,472	
Other (Private Foundation)	32,500	($65,000 for two years)
TOTAL	$284,972	
• Per pupil		$282.43

In addition to the above, the following funds were designated for bilingual project schools*:

Federal and State	$855,132	
Other	-0-	
TOTAL	$855,132	
• Per pupil		$270.70
• Total per pupil additional funds for bilingual project participants		$553.13

The additional funds ($855,132) mentioned above come from the following sources: Title I, migrant education funds, ESA (Pilot and Basic grants), Title IV, and Title VI, state funds for educating native Americans and funds for early childhood education. The District pays all teacher salaries for some classroom materials.

---

* These figures for the entire district and per pupil costs are based on the district school population.

Other Support

The bilingual project is directed in close cooperation with the school district. The District provides, in addition to general facilities and teacher salaries, technical assistance, teacher-training workshops, and access to special resources such as libraries.

The state bilingual education office supports the project by providing consultants, information, teacher-training programs, and special resources in addition to the funding provided. The state has been increasing its support of the bilingual project yearly, and now twenty-one of the thirty-nine classrooms are state funded.

CLASSROOM INFORMATION

Major Features of Classrooms Observed

- A consistent effort is made to transmit knowledge of the local Hispanic history and culture by means of classroom lessons and demonstrations which are presented approximately every four to six weeks by the project's curriculum resource teacher, by the cultural resource person who has a privately funded grant to develop and present such lessons, and by the project's community/school liaison person.
- The school population in the District consists of about 85% Hispanic students, almost all of whom come from families where English and Spanish are spoken interchangeably. Thus, the bilingual project here does not have a formalized English as a Second Language (ESL) curriculum, but Spanish as a Second Language (SSL) is taught to the few monolingual English speakers. The regular English language curriculum includes some ESL content such as pronunciation practice and vocabulary development.

- The school district has equipped Reading labs in all the elementary schools through assistance from the federal Title I program. School district planners as well as individual school principals have made a commitment to an educational program with heavy emphasis on basic English Reading skills. These Reading labs are administered separately from the bilingual project; but all the schools in the bilingual project have these facilities, and they form an integral part of the educational treatment for the bilingual project students.

- The project maintains a bilingual materials center from which teachers may check out materials (supplementary kits, books and pamphlets on ideas for instruction, for bulletin boards, etc.) for two-week periods. Teachers are provided with a catalog of available materials, and then they may either come into the center themselves or request that the school/community liaison check out things for them. Since some of the teachers in the outlying areas around the town don't have time to come in to the center, the project coordinator and curriculum coordinator sometimes deliver materials to the schools.

- A variety of textbooks are used in the project classroom, since teachers at the various schools work out their selection of textbooks individually with their principals. The curriculum coordinator of the Title VII project encourages the use of the Spanish Curriculum Development Corporation (SCDC) materials as the basic Spanish language textbook in grades 1 through 5 and also guides teachers toward using other supplementary materials such as those from Curriculum Adaptation Network for Bilingual Bicultural Education (CANBBE).

Impact Study Samples

The remainder of this description contains information obtained during site visits to a random sample of Bilingual Impact Study classrooms. Of the thirty-two classrooms in the target range of grades two through five, eight were selected at random to be included in the Impact Study. Of these, four (two third- and two fifth-grade classrooms) were randomly selected for detailed observation. (No second-grade classrooms were included in the intensive sample because all the second-grade classrooms are designated as State Bilingual classrooms, although they form part of the articulated Title VII program.)

Instructional Strategies for Grade 3

English Language Instruction for Native-English Speakers, Native-Spanish Speakers, and Bilingual Students

English Language Arts is taught as a whole-class activity, except for spelling, where children either are grouped randomly for convenience or work individually at their own pace. There is variation between classrooms in the amount and type of oral work in English. From 1 to 2 1/2 hours a week are devoted to oral work such as storytelling and sharing. One teacher also includes choral reading, plays, and poetry in the curriculum. Written language instruction at this grade level stresses capitalization, punctuation, grammar, and handwriting. One class also includes some creative writing.

Textbooks vary also between classrooms, Keys to Good Language (Economy Company) being used in one class and Language and How to Use It (Scott Foresman) in the other.

Both third-grade classes are divided into three ability groups for Reading as determined by the teachers' observation of student work. Groups are rarely changed. Both teachers devote 2 1/2 hours a week to Reading in their classrooms. Phonics and comprehension are stressed, with the top group in one class also learning some library skills. In both cases, more teacher or aide time is devoted to instruction and less to independent work for the slower ability groups. One small group receives "personalized" instruction from the aide for the whole Reading period every day. Reading for the better Reading groups involved independent reading and much discussion for comprehension. Literary concepts are also covered.

For example, one Reading lesson observed consisted of the students' reading some fables aloud, discussing what a fable is, and then being assigned to write fables of their own.

All the students from one classroom spend forty-five minutes a day working in the school Reading lab in addition to half an hour a day reading in class. The lab is staffed by a Reading specialist and aides who have been specially trained as Reading tutors. In the other class, six students have been selected for special Reading lab instruction for half an hour a day. Three of these students are from the slowest Reading group, and the three others are among the class's five bilingual Spanish-dominant students (i.e., they are more Spanish-dominant than the others in this class).

The Reading textbook in both classes is the third-grade reader from the Economy Company series.

Spanish Language Instruction for Native-Spanish Speakers and Bilingual Students

Neither third-grade class is grouped for Spanish Language Arts or Reading, but instead both are instructed as an entire class. The classroom teachers (both are bilingual) are the principal instructors in both cases, and instruction time is half an hour a day. Total time is about equally divided between Reading skills (phonics and comprehension) and written and oral Language Arts.

The more strongly bilingual class works on grammar and creative writing, choral reading, dialogues, and general sharing as well as areas such as basic punctuation, capitalization, spelling, storytelling, and games, which the other class also studies. In the more English-dominant classroom, Spanish is taught by a direct-translation method, the teacher repeating the instruction in English when necessary. The students also use English freely during the Spanish language period. Heavy emphasis is placed on vocabulary building, pronunciation, and listening comprehension. Students sometimes do sentence completion drills. One teacher uses the

Spanish period three days a week for Reading and oral responses to comprehension questions and two days for practicing writing skills. Then she reverses this schedule on alternate weeks.

Both classes use a variety of textbooks and materials for Spanish Reading. The project is participating in a try-out and regionalization of the Spanish Reading series from the Spanish Curriculum Development Corporation (SCDC). Dittoed booklets from this organization and from other sources, including locally produced materials from the Resource Center, are used in one classroom.

The other class uses the SCDC materials and, as supplementary textbooks, the Tierra de Encanto state series and material from CANBBE (Curriculum Adaptation Network for Bilingual/Bicultural Education).

Mathematics Instruction

Both classes are divided into two Mathematics groups, a high ability one and an average one, on the basis of teacher observation in one case and on the pretest results in the other. In one case, instruction is individualized within the groups. In one class the teacher usually instructs the top group and the aide, the others. In the other class, the teacher and aide take turns working with the groups, a few weeks at a time with each group.

In the more English-dominant class, Mathematics is taught only in English; in the other class, Spanish is used when necessary.

Instruction time varies significantly between classrooms. One group spends half an hour a day on Mathematics; the other, one hour a day.

The more advanced groups in both classes have studied addition, subtraction, multiplication, measurements, some beginning geometry, and new math concepts. One class has also worked on division and beginning algebra and geometric shapes, in addition to the basics of addition, subtraction, and new math concepts.

One class uses the Harbrace Mathematics series (Harcourt Brace Jovanovich, Inc.) and supplementary materials, such as Mathematics records, charts, games, exercise sheets, and other manipulative materials. The other class uses a textbook and workbook called Experiences in Mathematics (Mastering Mathematics series, Sadlier).

Cultural Component

Hispanic culture is not taught as a separate unit in either third-grade class. Special curriculum and resource personnel come into the classroom to give presentations (see preceding Major Features of Classrooms Observed section). When other Social Studies subject matter is related to the Hispanic culture, then this period is taught in Spanish. Otherwise, Social Studies is taught in English.

Instructional Strategies for Grade 5

English Language Instruction for Bilingual and Native-English Speakers

Both fifth-grade classes observed treat Language Arts as a subject for whole-class instruction. In one case, this subject is taught by an English monolingual team teacher who comes in the class fifty minutes a day while the regular classroom teacher goes to that teacher's class to teach Spanish. The students receive writing instruction about ten minutes a day, write for about thirty minutes, and spend another twenty to thirty minutes on oral English practice, such as choral reading, play reading, storytelling, and sharing. Writing skills include grammar, punctuation, capitalization, and creative writing, as well as writing reports.

In the other classroom, the classroom teacher (who is English dominant) gives Language Arts instruction for half an hour daily, not counting time devoted to oral English through class discussions. This class is very outgoing and holds lively class discussions concerning most content areas. Written work includes capitalization, punctuation, spelling (where students are regrouped weekly by need), outlining, and creative writing.

For Reading, the fifth-grade students are grouped into six ability levels, and they then go to six appropriate classrooms for Reading instruction. Thus each teacher teaches Reading to a complete classroom of students who are working at the same grade level in Reading, instead of having one classroom with six ability groups.

In one of the fifth-grade classrooms, Reading levels ranged from above fifth grade to mid-first grade. There are six students from this class who stay with the "home" teacher for Reading and are joined by about fifteen others from different classes. Once the groups are assembled, they are not regrouped but are instructed partly as an entire class and partly through individualized instruction with SRA Reading kits. Vocabulary building and written and oral book reports are part of the Reading program.

In the other classroom the students also go to six different classrooms for Reading. This teacher takes the slowest readers from all the fifth-grade classes; many of these students are working on beginning phonics. Some instruction and drill is done by the entire class; independent work is done in small groups. Although there is not ESL period in this curriculum, both of the Spanish-dominant students in the class are also in this basic Reading group.

Reading is taught in both fifth-grade classes for one hour a day. Four students from one class and seventeen out of thirty from the other class also attend a Reading lab for forty-five minutes a day.

Both teachers use the Economy Series textbook, Key to Good Language, and the Economy Reading series, except for the lowest Reading group, which uses the ABC Read series (CANBBE publisher).

Spanish Language Instruction for Bilingual and Native-Spanish Speakers

The composition of the two fifth-grade classes differs with respect to language dominance, one being made up of native-Spanish speakers or bilingual students and the other having more than half the students originally English-dominant.

In the more homogeneous class, Language Arts and Reading instruction in Spanish are taught as a combined subject. Students read in Spanish, discuss new vocabulary (noting differences between standard and local usages) and content, and do related exercises in writing, including instruction in Spanish capitalization, punctuation, and spelling.

There are three fairly stable ability groups for Spanish, which is taught for an hour daily. The two top groups are taught interchangeably by the aide and the teacher, and they write original stories and reports in Spanish, as well as the work already mentioned. The slower group is still working on Spanish phonics as well as on comprehension, and instead of creative writing they are learning to write sentences in Spanish. In oral work this group participates with the rest in Spanish skits and sharing periods but does not do the same work in choral reading and poetry. The classroom teacher takes responsibility for instructing this group.

All but seven of the English-dominant students in the other class are now bilingual readers. Thus, twenty-three out of the thirty students participate in the regular Spanish Reading curriculum and are not grouped except for convenience. The teacher and aide use a "stations" approach, switching between three groups about every half hour. Spanish Reading is taught for forty-five minutes per day. The teacher alternates every couple of weeks between teaching Language Arts as a whole-class activity and teaching Reading to the small groups. The classroom teacher is of Hispanic descent and speaks some Spanish, but is not truly bilingual. The aide, however, is fluent in Spanish and thus assumes a leading role in teaching Spanish language to this group.

When the whole class works on Language Arts, the teacher tries to achieve "total immersion" in Spanish. Sentence pattern drills and structured dialogues are practiced, as well as occasional pronunciation drills and listening comprehension exercises. Vocabulary building is always stressed.

Both fifth-grade classes are participating in the tryout of the SCDC materials and dittoed booklets. One class also uses the CANBBE materials and the BOLAR (Bilingual Oral Language and Reading) series for extra-curricular reading material. Except for the tape recorder, very few audiovisual aids are used although audiovisual equipment is available to the class and is used for other subjects.

Spanish Language Instruction for Native-English Speakers

One fifth-grade teacher instructs seven students in Spanish as a Second Language (SSL). They are treated as a separate group during the class's regular forty-five minute Spanish language period. The instruction is carried out by the classroom teacher. The students are working mainly on oral vocabulary building and on listening comprehension. The teacher uses a direct-translation method, and English is used freely by the students. (Three of these students are bilingual in a language other than Spanish--two are American Indians and one is from India.) Audiovisual stimuli, mainly pictures to illustrate vocabulary, are used. The SCDC materials are used for this group also.

Mathematics Instruction

Mathematics is approached very differently in these two classes: one uses whole-class instruction, and the other divides into five "need" groups, two of which work on individualized contracts.

The one class can work as a unit because only two of the twenty-seven students are working below grade level and only three are outstanding in Mathematics. The teacher gives instruction for about twenty minutes a day, and then students work independently for forty minutes while the teacher and aide move around the classroom giving help. Subjects covered have included addition, subtraction, multiplication, division, and fractions. Mathematical games and Mathematics kits with individualized activities cards are used to supplement the textbook, The New Math Book. About 85% of the instruction is in English, and the rest is in Spanish. Students use either language at will.

The other classroom follows a more complicated system and spends only forty-five minutes a day on Mathematics. There are five groups for Mathematics, two working above grade level, one at grade level, and two below, the lowest consisting of two students who work at about second-grade level on addition, subtraction, and beginning multiplication. Of their class time, 80% is spent with direct help from the classroom teacher. (The aide works half time and is not in the class during Mathematics period.)

The students in the next slower group have started division concepts and spend about 40% of their time independently. The average-ability group has done measurement problems in addition to the mathematical processes already mentioned, and they work independently about 60% of the time. These three groups receive instruction as small groups and work on assigned textbook pages and exercise sheets in a traditional manner.

The instruction for the two top groups consists of individualized instruction by contract. These students work independently 90% of the time, taking pretests, following task card assignments, and reporting to the teacher for posttests. Instruction for the whole class is not individualized only because the teacher has not had ample time to prepare the necessary individualized contracts, work sheets, etc., for all skill areas. The two top groups have started fractions and have worked on beginning algebra, as well as on the skills mentioned for the other groups.

There seems to be no relation between language dominance and Mathematics grouping, as students of different language proficiencies are spread throughout the groups. English is the language of Mathematics instruction. The main textbook is Exploring Elementary Mathematics (Holt, Rinehart & Winston); supplementary texts as well as charts and teacher-made exercise sheets are used.

Cultural Components

Hispanic culture is not taught as a separate component in either fifth-grade classroom. Social Studies is multicultural and is taught in both English and Spanish. Even in the less strongly Spanish-dominant classroom, about 30% of class time is in Spanish or a mixture of English and Spanish.

Parent and Community Involvement

One of the objectives of the project is parent and community involvement in the schools. Contact between parents and the project is maintained through monthly radio announcements and newspaper articles and project-sponsored presentations, as well as through teacher-parent contacts. Examples were observed during the site visit: the project sponsored an evening presentation for parents, children, and community members of a ballet folklorico; and one classroom was practicing a bilingual program for the town's businessman's service club. A school/community liaison is employed by the project, but her activities were not observed by AIR staff. One of her functions is to develop parent-teacher organizations at the schools.

Parent-teacher conferences are not part of the regular schedule for the elementary school teachers interviewed. They do, however, meet with all the parents at least once a year. The middle school teacher schedules conferences four times a year, and usually about a third of the parents attend. One teacher indicated that a community volunteer participated regularly in her class once a week, but only for the fall school semester. Most parent participation is related to bringing food for class parties, helping with costumes for school plays, and attending the yearly school open house. Some teachers have one or two parents giving special lessons or demonstrations once a year, and others report high parent participation in the local PTA. One school involves parents by organizing an intramural basketball tournament, where fathers serve as coaches. One classroom has gone on several field trips with parents and community members participating.

PROJECT 20

Project Information

Project Context and Target Population

Project 20 began in 1971. The District consists of seven elementary schools, two junior high schools, and one high school. There are approximately 9,000 students in the District, which serves a population of 35,000 situated in an industrial area about thirty miles from a large metropolitan city.

Project 20 consists of eighteen classrooms and operates in two of the District's seven elementary schools. It serves a total of 418 students and functions in kindergarten through grade 5. The kindergarten consists of four different sections, two in the morning and two in the afternoon. There are three bilingual classrooms at each level in grades 1 through 4 and two in grade 5.

Approximately 22% of the project participants are of white non-Hispanic descent. The principal estimates that approximately 54% of the school enrollment is of Hispanic descent according to surnames and that approximately 42% of the families in the school attendance area are Spanish monolingual. He also estimates that approximately 54% are English monolingual and that 4% are bilingual in language characteristics. He also suggests that the majority of the Spanish-speaking community consists of recent arrivals and first-generation Puerto Rican families.

The housing pattern in the village consists primarily of mixed single-unit and multiple-unit dwellings. The principal estimates the average gross annual income of the families served by the school to be from $6,000 to $9,000 including social service (welfare) benefits.

According to the Project Director, the village is primarily composed of blue collar workers with some civil servants. However, the target population is primarily composed of unskilled and semiskilled laborers employed by the textile and service industries. He further estimates the Hispanic population to be between 6,000 and 7,000.

Goals and/or Objectives

Project 20 has the following main overall objectives:

- To establish proficiency in both the primary language of the student and in the acquired second language
- To establish a mutual appreciation for the multicultural aspects of his/her environment
- To involve or incorporate the parents into the learning process of the student
- To establish a level of literacy in both languages and to ameliorate the self-concept of the parents (whose children are project participants) through a project-sponsored adult education program

Project Staff

Project 20 consists of sixteen teachers funded by state and local monies, plus two other teachers funded by Title VII. Title VII also provides the project with six full-time instructional bilingual Hispanic aides, one full-time community/school liaison, the full-time Project Director plus a part-time project evaluator and two part-time professional consultants. The students in the project may also be exposed to Title I remedial English teachers if need is shown, plus other staff provided by the school district such as the district psychologist, the librarian, and curriculum specialists.

Of the eighteen bilingual teachers, nine are of white non-Hispanic descent, and the rest are Hispanic. The professional consultants plus the project evaluator are also of white non-Hispanic descent. The rest of the project staff are all bilingual Hispanics.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	5	5
Total number of questionnaires received	4	4
Highest earned college degree:		
No degree		3
Degree or diploma based on less than 4 years of work		1
B.A. or B.S.	3	
Teaching credential only		
M.A. or higher	1	
No response		
Type of state teaching credential held:		
Non-credentialed		1
Temporary, provisional, partial-fulfillment, or emergency		2
Regular credential	3	
Bilingual-bicultural teaching credential	1	
No response		1
Years of full-time teaching experience:		
Less than 1 year	1	
1 year		1
2 years		1
3 years		1
4 years		
5-9 years	3	1
10-19 years		
20-29 years		
30 or more years		
No response		

Years of teaching in a bilingual program:	Teachers	Aides
Less than 1 year	1	
1 year		1
2 years		1
3 years	2	1
4 years	1	
5 years		
More than 5 years		1
No response		

Amount of college training specifically devoted to bilingual-bicultural education:	Teachers	Aides
1-5 quarter units (1-3 semester hours)	1	
6-15 quarter units (4-10 semester hours)		
16-30 quarter units (11-20 semester hours)		1
More than 30 quarter units (more than 20 semester hrs.)	1	1
No college training in bilingual-bicultural	2	2
No response		

Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:	Teachers	Aides
1 day or less	1	
2-15 days	1	
15-30 days	2	
More than 30 days		
None		4
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$209,000
Other Federal and State	-0-
Other (Private Foundation)	-0-
TOTAL	$209,000

- Per pupil $500.00

In addition to the above, the following funds were designated for bilingual project schools:

All District Schools	
Federal and State	$179,000
Other	-0-
TOTAL	$179,000

- Per pupil $19.89
- Total per pupil additional funds for bilingual project participants $519.89

The District operated on a $23 million state and local budget in the 1975-76 school year. Of this amount, $1.1 million was allocated to project use for the purpose of teacher salaries, textbooks, and supplies (including some Spanish-instruction materials).

In addition to these state and local funds, the District received $179,000 in Title I funds for the purpose of English remedial instruction especially for English dominant students. The calculations above assume an equal impact of these funds across all district schools, including the sample bilingual school. Of the total Title VII funds, approximately $170,000 was allocated for instructional purposes and $39,000 was allocated for staff development.

CLASSROOM INFORMATION

Major Features of Classrooms Observed

- A team-teaching approach to second language instruction is used.
- Spanish Reading is not taught as an outlined discipline.
- Subject areas such as Science and History are taught in units with a total-immersion, Spanish-language approach.

Impact Study Samples

One of three second-grade classes participating in the project was randomly selected for testing in the Impact Study and later randomly selected as part of the Intensive Study sample. The second-grade class selected consists of twenty-five children of whom six are of white non-Hispanic descent, one is black, and eighteen are of Hispanic descent. The classroom teacher is bilingual and of white non-Hispanic descent with over seven years of teaching experience; two of which were in bilingual classrooms.

Instructional Strategy for Grade 2

English Language Instruction for Native-English and Native-Spanish Speakers

English Language Arts is taught by the classroom teacher with assistance by the bilingual aide. Written Language Arts and Reading are taught together for a two-hour period daily.

Written Language Arts is taught to the whole class for approximately an hour daily. Individual instruction and assignments are given to one student whom the teacher indicates as having learning disabilities. The skills taught include capitalization, punctuation, spelling, grammar, and creative and nonfictional writing. Spelling is also covered within the Reading group's seat work assignments. An average of 1 1/2 hours a week is spent in direct instruction time alone (twenty minutes daily) and a little over three hours weekly (forty minutes daily) is devoted to independent work.

Oral Language Arts instruction is flexible and taught mostly in the afternoons. The areas of poetry, storytelling, and sharing are covered in addition to creative dramatics which also is incorporated into the Social Studies units. An average of about 1 1/2 hours a week is spent in this area.

Reading instruction is given to four ability groups on a rotating basis. While one Reading group is with the teacher, the others are involved in Reading seat work and other Language Arts assignments. Students receive individual help from the bilingual aide. Each group receives approximately twenty-five minutes on Reading follow-up and independent seat work, also daily. During an average week, each group will spend from thirty to forty-five minutes answering questions from the stories, about forty-five minutes completing workbook pages, and approximately forty-five minutes on vocabulary reinforcement and development (from the given Reading assignments) as part of their independent study program. In addition to the independent study conducted in the classroom, the teacher assigns about fifteen minutes of homework in the above areas every night except Friday.

There are ten students in the high-ability group. Seven are English dominant and three are bilingual. At the time of visitation, the group was reading the textbook, Going Places, Seeing People (Harcourt Brace Jovanovich, Inc.).

The average-ability group consists of four bilingual students who were reading the second half of the textbook, On Cherry Street (Ginn Reading series). The average/low-ability group consists of six bilingual students who were on the first half of the same textbook (On Cherry Street) at the time of visitation. These six students also received remedial Reading instruction for 1 1/2 hours daily from a special remedial Reading teacher to improve their Reading abilities.

The last Reading group is also reading On Cherry Street; however, it is considered the lowest in ability (low first-grade level). This group consists of four bilingual students and receives no extra remedial help outside the classroom.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

The students participating in the second-grade bilingual program are divided into three main language groups for forty-five minutes daily. These consist of English as a Second Language (ESL), Spanish as a Second Language (SSL), and a Spanish Language (SL) class. The ESL class is taught by this classroom teacher; however, there are no students from this class assigned to ESL because this is a bilingual/English-dominant group.

Seven students from this second-grade class who are English dominant receive SSL from another second-grade teacher. Instruction consists primarily of basic vocabulary building and oral Spanish development. The rest of the class, which consists of eighteen bilingual students, receives instruction in Spanish from the remaining bilingual teacher. This is basically a total-immersion Spanish lecture class which varies (according to one- or two-week units) in subject content. Often, Science or History units as well as basic Spanish grammar, vocabulary, and reading skills are taught. No Reading series or textbooks are used.

Reading comprehension and other instructional materials are in the form of dittos provided by the instructor. Approximately 75% of the class time is spent in direct instruction, and about 25% of the time is devoted to independent work.

Every Friday, the three second-language groups come together for a cultural activity. Both Spanish-speaking and English-speaking cultures are stressed. The three second-grade teachers rotate in preparing and leading the weekly activity which may consist of music, games, dancing, or films.

There is one Hispanic student in the classroom who is not in a Reading group because he is going to be tested for possible learning disabilities.

The criteria for designating the grouping pattern were based upon standardized tests and teacher observation. The students are regrouped at times on the basis of ability and need.

Mathematics Instruction

Mathematics instruction is given to two main groups. One group (twelve students, seven English-dominant and five bilingual) is at grade level. The other group (twelve bilingual students) is considered to be below grade level. The one child with learning disabilities is given individualized instruction covering the basic skills of addition and subtraction.

The classroom teacher works alone with Mathematics instruction. The subject is taught for an hour on Mondays and Wednesdays and for forty-five minutes on Tuesdays, Thursdays, and Fridays. Thus, the Mathematics work week consists of approximately 4 1/4 hours. The teacher meets with one group for direct group instruction for an entire period and then alternates groups the next day. The day the teacher is involved with one group, the other group works independently.

The content skills covered for the group at grade level consists of addition, subtraction, multiplication, fractions, and measurement. The skills covered for the remaining group consist of addition, subtraction, and measurement. The language spoken by the teacher for instruction is English, and the major textbook used is Elementary School Mathematics (Addison-Wesley).

The criteria for designating the grouping pattern are based upon the Investigating School Mathematics series (Addison-Wesley) textbook unit test and teacher obsrvation. Only two students have changed groups this year on the basis of need.

Cultural Component

This area is not taught as a separate unit in itself, but rather is incorporated into the Spanish and second-language instruction. This is done once a week (Fridays) by grouping all three sections together (ESL, SSL, SL). The teachers work as a team and take turns in being responsible for and planning the intercultural activity.

Three classroom teachers and one aide participate in this forty-five minute session. The teachers select and assign the materials and topics and use both languages (Spanish and English). The content areas which have been covered in this cultural experience include cooking, folk dancing, games, Geography, History, holidays, Music and famous people.

Parent and Community Involvement

The teacher indicated during the interview that approximately two or three parents help out at class parties each semester. Since there are no current funds for field trips, there is no parent involvement in that area. However, when there were funds for trips, the parent response and participation were good. There is also a good response for the annual school play. The teacher did not know about parent participation in the PTA.

Each semester the teacher has individual conferences with approximately twenty-five parents in lieu of issuing report cards. The teacher attributes the 100% success rate at carrying out this task to the fact that the community/school liaison makes the appointments with the parents and then provides transportation for them if necessary.

The Project Director estimates that approximately 80% of the parents participating in the project will come at one point to the Bilingual Parent Advisory Board functions. The parents are trained by the Project Director and evaluator to observe classrooms and administer tests as part of the evaluation process. Parents also participate actively in organizing cultural activities; they also furnish food and clothing and put on plays. At least five cultural activity days were planned for the academic year including those during Pan American Week. The bilingual project extends into an adult education program for the parents to help establish literacy in both languages among the participating families. The parents are active in this program which is sponsored by Title VII and headed by the Project Director.

PROJECT 21

PROJECT INFORMATION

Project Context and Target Population

The District is located in a state along the border between the United States and Mexico. It is situated in a small town approximately 400 to 500 miles from the closest metropolitan area.

The county is among the poorest counties in the nation. It is beset by social and economic problems. Mass unemployment is a major problem. The present unemployment rate is 13%. A large segment of the population migrates yearly. This pattern has predominated for generations. Federal programs for the county are being implemented to alleviate some of the extensive health and housing problems. The School District relies heavily on the following federal programs: OEO, Headstart, ESEA Title I, Title I Migrant, and ESEA Title VII.

The District serves three major towns. The population is composed of Mexican-Americans (97%) and white non-Hispanics (3%). Approximately 90% of the population speaks Spanish as the first language. About 85% cannot speak English when they come to school for the first time. The continuous influx of Mexican immigrants into the area has maintained this pattern for the past fifty years.

Project 21 has been funded since the 1972-73 school year. It is currently operating in seven schools with forty-three classrooms distributed in kindergarten through grade 4. Bilingual education is also supported at the fifth grade level by ESAA funds.

Approximately 1,333 students in kindergarten through grade 4 were involved in the ESEA Title VII Bilingual Program during the 1975-76 school year. Since the school district's population is 97% Hispanic and 3% white non-Hispanic, all students of limited English-speaking ability are given the opportunity to participate in the bilingual project. It should be noted that the 3% English-dominant students participate on a voluntary basis and have some knowledge of Spanish, given their proximity to the border.

Project students in the four schools selected for intensive study come from families who are predominantly bilingual and earn very low incomes as farm laborers or semiskilled workers. A large proportion of migrant families leave the valley during March but return to their homes in October or November; some families stay longer than two years. Most families are permanent residents and live on their own property. Given the few employment oppourtunities, families are forced to find work elsewhere. Although many students are considered bilingual, the dominant language spoken at school and home is Spanish.

Goals and/or Objectives

The major goals of Project 21 are (1) to develop in students a positive self-image with pride in both cultures; (2) to assist students in attaining the goals of the educational process using two languages and developing proficiency in both; (3) to develop and implement a staff development which will recognize and meet the academic needs of students from both cultures; and (4) to acquaint parents and community members with the bilingual project and actively involve them in the general structure and operation of the project.

To achieve the first goal, the bilingual project supports an instructional approach which devotes equal time to English and Spanish. This plan has been designed to cover the areas of human development, cultural heritage, Social Studies, Spanish Language Arts, English Language Arts, Science, and Mathematics. This "maintenance" bilingual project is provided in kindergarten through grade 6.

The second goal of the project which has received major emphasis is staff development. In addition to providing district and state workshops which specifically train teachers and paraprofessionals in bilingual instruction, the District has contracted with a university for the coordination of teacher-training services.

– The third goal of Project 21 is to train teachers and teacher aides by two- and five-year plans, respectively. Tuition, travel expenses, and stipends are given to the participants of both plans. The degree project for both teachers and teacher aides is offered during the regular school year and the summer. Tuition costs are covered for all participants with additional travel monies for designated drivers of car pools. During the summer, stipends are awarded since teachers and paraprofessionals are not employed by the school district.

A staff development model is followed which incorporates bilingual/bicultural education, competency-based teacher education, and a field-experience component.

The fourth goal of parent and community involvement in project operation is channeled through the Community Advisory Committee which meets monthly at the different school campuses to inform as many parents as possible of the objectives and procedures of the project. This body's membership consists of parents elected from each of the seven campuses, the Superintendent, the Project Director, the project's Community Agent, and a teacher. This body is totally advisory in function and does not make substantive changes in project operation. It provides a means for input on the progress and continuation of the bilingual project.

Project 21 is supported by the following personnel: forty-three full-time classroom teachers, who are paid out of State Minimum Foundation Funds, twenty full-time teacher aides, a full-time staff developer's assistant, and the full-time Project Director. Of the 1975-76 school year project staff, all classroom teachers and teacher aides are bilingual. All teachers but one are Hispanic. All staff members but one have been with the project for two or more years.

During the 1975-76 school year, the bilingual project received support services form two sources: the state and the district. Consultant services from a Federal Region Service Center and the State Education Agency provide technical assistance. Preservice training for teachers, held before the beginning of the school year, was partially sponsored by the Regional Office. During the school year, audiovisual material is made available to teachers from the Regional Office. The State Agency has provided consultants on curriculum development, proposal guidelines, workshops on teacher-training for project administrative staff, and test materials. In addition to monies allotted for participants in bilingual education, the state has assigned special Language Arts materials for bilingual education for kindergarten through grade 2. The Macmillan Series was implemented at the kindergarten level and the BOLAR Series at the first and second grades.

The District has supported the program in innumerable ways. Assistance and support for the program have been given in the following manner:

- By providing the space for all bilingual classes held
- By providing the teachers' salaries which are not covered by the state
- By providing the office space and utilities for the bilingual project and its staff
- By providing administrative assistance to the Project Director
- By making available all school equipment which is used in bilingual instruction.

Furthermore, workshops on bilingual education issues were the focus for one inservice training meeting. Special monetary allocations have been directed for the purchase of additional bilingual materials. Finally, one cannot adequately determine the total support and commitment given by school principals and other administrative personnel.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	9	9
Total number of questionnaires received	10	4
Highest earned college degree:		
No degree		4
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	5	
Teaching credential only	3	
M.A. or higher	2	
No response		
Type of state teaching credential held:		
Non-credentialed		3
Temporary, provisional, partial-fulfillment, or emergency	3	
Regular credential	4	
Bilingual-bicultural teaching credential	3	
No response		1
Years of full-time teaching experience:		
Less than 1 year		1
1 year	3	
2 years		
3 years		
4 years		2
5-9 years	5	
10-19 years	2	
20-29 years		
30 or more years		
No response		1

Years of teaching in a bilingual program:	Teachers	Aides
Less than 1 year	3	1
1 year	4	
2 years		
3 years	1	
4 years	2	2
5 years		
More than 5 years		
No response		1

Amount of college training specifically devoted to bilingual-bicultural education:	Teachers	Aides
1-5 quarter units (1-3 semester hours)		
6-15 quarter units (4-10 semester hours)	2	1
16-30 quarter units (11-20 semester hours)	1	
More than 30 quarter units (more than 20 semester hrs.)	2	
No college training in bilingual-bicultural	5	2
No response		1

Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:	Teachers	Aides
1 day or less		
2-15 days	5	2
15-30 days	4	1
More than 30 days		
None	1	
No response		1

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$211,000	
Other Federal and State	-0-	
Other	-0-	
TOTAL	$211,000	
• Per Pupil		$164.07

In addition to the above, the following funds were designated for bilingual project schools:

School A		
Federal and State	$73,066.02	
Other	-0-	
TOTAL	$73,066.02	
• Per pupil		$254.59
• Total per pupil additional funds for bilingual project participants		$418.66
School B		
Federal and State	$107,171.41	
Other	-0-	
TOTAL	$107,171.41	
• Per pupil		$310.64
• Total per pupil additional funds for bilingual project participants		$474.71
School C		
Federal and State	$78,659.52	
Other	-0-	
TOTAL	$78,659.52	
• Per pupil		$132.65
• Total per pupil additional funds for bilingual project participants		$296.72

School D

Federal and State	$127,774.74	
Other	-0-	
TOTAL	$127,774.74	
• Per pupil		$365.70
• Total per pupil additional funds for bilingual project participants		$529.77

The federal funds in addition to the Title VII grant are from Title I, Title I Migrant, and ESAA funds. The District also received approximately $41,500 in state bilingual education funds in 1975-76, which were used for materials and staff development in the Title VII bilingual education project schools and in several other schools in the District. Since the number of students served by these funds is not available, these state funds are *not* included in the per pupil cost calculations presented above. The District estimates its average per pupil cost as $331.00, *not* including extra state and federal funds.

CLASSROOM INFORMATION

Impact Study Samples

Nine classrooms were selected from the second and fourth grades for the Impact Study. In the second grade, one target classroom was randomly selected at two schools. Three third-grade classrooms were chosen. At one school, the classroom was randomly selected from within the grade level, the second classroom was the sole third grade in the school, and in the third school a comparison classroom for this grade level was designated. At the fourth-grade level, four classrooms were selected from two schools. In four classrooms, target and comparison students were mixed. Since it was felt that the effects of three years' participation in a bilingual project would be reflected in those target students, it was decided to test all four classrooms. The fourth-grade classrooms in the projects are currently receiving reduced services because of some limitations in funding. Therefore, the bilingual project is not being implemented on the same scale as may be found in the other grade levels.

For the on-site observations, four classrooms were randomly chosen from the nine: one classroom each from the second and third grades and two from the fourth grade. Of the five target schools, only four were observed. The student population of these four schools numbers approximately 1,580 with an ethnic composition of Mexican-American (98%) and white non-Hispanic (2%).

Instructional Strategies for Grade 2

Major Features

- Instruction in all subject areas is individualized, and a systematic assessment program is used.
- The classroom teacher is assisted by several specialized teachers and aides, including three from the Follow Up Program who work with migrant students. All these personnel are Hispanic and bilingual.
- English Language teaching is mainly done in English; Spanish is mainly taught in Spanish.
- The teacher purchases or makes most of the instructional aids.

Groups are designated at the start of the school year according to the booklet each student has completed in the English Rock and Roll Series produced by the Region One Service Center. These booklets consist of phonics and vocabulary exercises with a test administered individually at the completion of the booklet. In order to progress through the series of eight booklets, the student must demonstrate a mastery of skills taught by the teacher. Seven groups were formed: four groups had five students each; and the other three groups had four, three, and one students, respectively. However, there was a great deal of variation due to students moving into other booklets, and thus the grouping pattern was determined by the individual's progress. Therefore, grouping was based on the student's skills and/or needs. The teacher and aide worked together in the instructional program by alternating the various groups. This was done for the entire English Language Arts component, which consisted of writing, oral work, and Reading. Approximately 1 1/2 hours a week were devoted to Reading instruction for each group. This consisted of the English Rock and Roll material as well as the BOLAR Series, which includes reading comprehension as well as phonic and vocabulary skills. Independent study activity for this subject area amounted to 2 1/2 hours a week for each group. The other aspects of English Language Arts, such as capitalization, punctuation, spelling, grammar, and creative writing, were taught for approximately one hour each week with one hour assigned for independent work activity.

Oral work in poetry, storytelling, choral reading, sharing, and English pronunciation took place approximately 3 1/2 hours a week. Although exercises in English pronunciation might be considered part of English as a Second Language (ESL) instruction, there was no formal ESL program.

Instruction during the English Language Arts component was given only in English. However, Spanish is spoken freely by both teacher and student during informal periods or to facilitate instruction. However, Reading instruction was carried out primarily in English. The majority of students were considered bilingual by the teacher: none were English-dominant, almost half were Spanish-dominant.

In addition to the paraprofessional, the teacher depended on the services of a few other professionals during English Language Arts instruction. Eight students were pulled out by the State Follow-up Program for individualized instruction in Mathematics. Three paraprofessionals from this project tutor these migrant students for approximately 6 1/4 hours each week. In addition, two remedial Reading teachers and one learning disabilities teacher assist the teacher. One remedial Reading teacher works with twenty-two students in various groups for at least forty-five minutes each day. The other remedial Reading teacher only pulls out one student for the same amount of time. The learning disabilities teacher works with five students approximately 2 1/2 hours a week.

Evaluation of the students' progress in English Language Arts is done in several ways. The California Achievement Test is administered twice during the school year; every six weeks before grade reports are sent home, the teacher diagnoses each pupil's progress to revise her instructional strategies for Reading. This diagnosis is based on bimonthly tests in Reading and weekly tests in spelling, in addition to the teacher's observation of the student's performance in the classroom. During the fall, twelve students were also given the pilot form of a migrant test by the District.

A wide variety of instructional aids are utilized for the teaching of English Language Arts. The BOLAR Series developed by the Southwest

Educational Development Laboratory serves as a combination basic textbook and workbook. A supplementary basal series is also utilized. The English Rock and Roll and other materials are used for phonics, spelling, and handwriting.

Other audiovisual and/or manipulative materials incorporated into the English Language Arts program includes charts, instructional games, flash cards, tapes, records, films, filmstrips, and a television set.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

Students are grouped for Spanish Language Arts at the start of the school year according to their ability and the teacher's observation and judgment. This judgment is made on the basis of the student's previous year's achievement and his/her performance on review material covered during the first few weeks of school. Then the students were assigned to groups. Four groups were designated: (a) one group of eight students (all Spanish-dominant) were at the readiness level and were being given primarily phonics instruction; (b) a second group of ten students (mostly Spanish-dominant) were functioning at the first-grade level in the BOLAR Series--Lecturas y Escrituras, Book 2; (c) the third and fourth groups, of nine and six bilingual students respectively, were reading in materials considered appropriate for their particular grade level. They were working in Lecturas y Escrituras, Book 3. One should note, however, that the "groups" did not function in the traditional sense as groups. During the Spanish Language Arts period, lasting one hour, two groups were out for physical education. The groups were rotated during the second half hour. Therefore, grouping was primarily a method for administrative convenience. Primarily, small group or individualized instruction was provided during the period since students were functioning at different levels even within a particular group. Members of each group were evaluated and regrouped twice a month depending on the individual students' needs.

A minimum of 1 1/4 hours are given each week for the direct instruction of each group. Tutoring is given to students in Book 2 and 3 for fifteen minutes each day. An additional 1 1/4 hours are spent in independent activity. Both teacher and paraprofessional rotate teaching responsibility of all four groups. Instruction is given primarily in Spanish.

The Spanish Language Arts component consists of lessons in grammar, composition, mechanics, and spelling, which are closely integrated with Reading instruction. Emphasis in Reading is placed on phonics and reading comprehension skills. In addition, the teacher devotes 1 1/4 hours each week to storytelling with the entire class. While the teacher or paraprofessional may utilize certain teaching techniques which are considered characteristic of teaching a second language, there is no formal Spanish as a Second Language (SSL) program in this classroom.

Evaluation of the students' work is done by teacher observation and by formal testing. Both methods are utilized in order to revise teaching methods as well as to record student achievement for grade reports. Weekly tests are given in spelling and other tests twice a month. The teacher also enriches her Spanish Language Arts component with the use of numerous audiovisual materials. In addition to the BOLAR Spanish materials, these other instructional aids include exercise sheets, charts, games, flash cards, cassette tapes, and films.

Mathematics Instruction

Grouping in Mathematics is determined according to the student's work habits and academic ability. There are three groups, two of which have ten and fifteen students respectively. One group consists of students performing at a medium and low level while the other group has students of middle and high ability. The third group of students consists of students in the Follow-up Program, since this special program offers individualized instruction to those migrant students who go to another state during the summer months. There are eight students in this group and they are performing at grade level and above. The groups have remained quite stable throughout the year. Teacher and paraprofessional share teaching responsibility of the content areas: addition, subtraction, fractions, measurement, and geometric shapes. Although there are three groups, teacher and paraprofessional manage to create small group and individualized instruction during the Mathematics period. This occurs because two remedial Reading teachers pull out students for additional Reading instruction. Approximately 3 3/4 hours are devoted to Mathematics each week with 1 1/4 hours of this in direct instruction of each student. Both languages are utilized and the new math approach is followed in the curriculum. The textbook Modern School Mathematics (Houghton Mifflin Co.) is used. There are a number of other instructional aids which enrich the program. A supplementary textbook is Developing Mathematical Processes (Rand McNally & Co.) consisting of lessons, manipulative aids, and workbooks which expand the students' understanding of mathematical concepts. In addition, the teacher provides exercise sheets, games, and flash cards.

Evaluation of students in Mathematics consists of the subtest in the standardized California Achievement Test which is administered twice a year and weekly tests which diagnose students' progress for the purpose of revising curriculum goals and which also determine grade reports.

Cultural Components

Hispanic culture is integrated with the teaching of Social Studies which occurs at least once a month. Typically, a cultural lesson is taught in connection with a special holiday. Instruction is given in both languages, and curriculum units for this subject area are provided by the Title VII office.

Instructional Strategies for Grade 3

Major Features

- The classroom was situated in a "corner" of the school cafeteria, partitioned by a portable chalkboard, a filing cabinet, a bookcase, and the teacher's desk.
- During the last hour of the morning period, the kindergarten students enter the cafeteria for their lunch. Despite this interruption, those students involved in a teacher-directed reading group maintained high level of concentration.
- Spanish is the preferred language for communication among peers and is spoken fluently by the majority of students.

- The teaching of Hispanic culture is integrated with the teaching of Spanish.
- Students' progress is evaluated systematically.
- Spanish and Mathematics are taught to the entire class. Smaller groups are used in English instruction.
- English language and Social Studies instruction is given by the head teacher of the school--Spanish language and Mathematics, by the classroom teacher. The aide helps with Spanish instruction.
- The teacher, head teacher, and aide are all bilingual Hispanics.

English Language Instruction for Native-English and Native-Spanish Speakers

This component is not taught by the regular classroom teacher. For 3 1/2 hours each day, the principal (called head teacher at this particular school) provides instruction in English Language Arts as well as Social Studies and Science for this particular classroom. The groups for English Language Arts are established for the Reading component only. The writing and oral components, which include spelling, grammar, writing mechanics, creative writing, penmanship, and short skits, are taught to the entire class (in this case thirty-one students). Grouping for Reading is determined by the results on the California Achievement Test (administered at the start and the closing of the school year) and the student's previous Reading achievement. Three groups are functioning on different levels in the third-grade basal reader and thus are designated high, medium, and low. Twelve students are pulled out during the Reading period for remedial Reading.

English Language Arts is taught during a forty-minute block of time each morning. After the introductory lesson, students are given assignments which are completed during the remainder of the period. After a short break, the Reading component is begun. This consists of oral and silent reading, phonics, and reading comprehension with each group. Approximately twenty minutes each day are devoted to the direct instruction of each group with an additional forty minute block allotted for independent activity. Since the teacher is the sole instructor in the classroom, she is constantly dividing her attention between the group she is instructing and the rest of the class. There is a classroom aide, however, who works in the classroom during the afternoon period.

English Language Instruction is only in English. However, both English and Spanish are spoken freely on an informal level. In addition to the use of the California Achievement Test, weekly tests are given in spelling, and prior to the grade-reporting period tests are administered which cover spelling, reading, and English language arts. It should be noted that all tests are considered diagnostic and are useful for revising strategies and goals.

The textbooks--My Word Book (spelling), Air Pudding and Wind Sauce (reading), and Adventures in English (language)--and exercise sheets comprise the only materials utilized in the instruction of English Language Arts.

Spanish Language Instruction for Native-Spanish Speakers and for Native-English Speakers

Instruction in Spanish Language Arts is provided to the entire class. Approximately thirteen students are considered Spanish dominant with the remainder of the class designated bilingual. A forty minute block is assigned to this subject area each day. During this period, major emphasis is given to oral reading and reading comprehension. There is some attention to capitalization, punctuation, and spelling in the teacher's instruction, but this is minimal and included in the indepedent work activity which consists of book exercises.

The component of Hispanic culture is also integrated with the teaching of Spanish. Typically, a culture lesson is taught in connection with a special holiday, which occurs practically once a month. The lessons on history, significant events, and famous personalities are presented in both languages by the teacher and sometimes the paraprofessional. The curriculum units for this area are produced by the Title VII office. This office has also provided the teacher with numerous supplementary books for the instruction of Spanish Language Arts.

Evaluation of students' work is completed on a bimonthly basis. Tests are administered in Spanish and are used for grade-reporting purposes.

In addition to the supplementary Spanish books, the teacher uses Mis Primeros Pasos (W. S. Benson & Co.) as the major textbook for the class.

Mathematics Instruction

Mathematics instruction is given fifty minutes each day to the entire class. Taught in both languages, the content in the subject covers addition, subtraction, multiplication, and measurement of time and liquid. The new math approach was being utilized as well as a more traditional method of instruction. The classroom teacher was the sole instructor for Mathematics. Instructional materials included only a major textbook. Student evaluation is determined by weekly tests that diagnose students' progress for the purpose of revising curriculum goals or teaching methods. Every six weeks, a test covering the material taught during that period is administered, and grade reports are sent to the parents.

Instructional Strategies for Grade 4

Major Features

- English Language Arts is taught to the whole class; some grouping occurs in Reading. Spanish Language Arts is taught to the whole class.
- The cultural component is taught in conjunction with Spanish Language instruction.
- Students' progress is evaluated systematically.
- The classroom teacher was implementing a form of individualized instruction for a group of slow learners in Reading and Mathematics.
- The teacher had been working formerly as a teacher aide in the program.
- Spanish is the preferred language for communication among peers and is spoken fluently by the majority of students.

Although two classrooms were initially selected for intensive observation at the fourth-grade level, only one classroom is described in the following pages because funding during the 1975-76 school year did not include the other classroom. This information was not evident until on-site interviews were conducted.

English Language Instruction for Native-English and Native-Spanish Speakers

English Language Arts is taught to the entire class (twenty-nine students), with the exception of Reading where some grouping does occur. The classroom teacher devotes six hours a week to the following areas: capitalization, punctuation, spelling, grammar, creative writing, penmanship, storytelling, book reports, and free discussion on special topics. During the Reading component, she will instruct the entire class for fifty minutes, Monday through Thursday, and allot an additional ten minutes for independent work assignments. On Friday, she will spend the equivalent amount of time in instructing the remedial Reading students (nine students) and will allow the other students to work independently on silent reading, library book assignments, and other skill exercises. Direct instruction includes oral and silent reading, phonics, and reading comprehension exercises. Two remedial Reading teachers work with students during English Language Arts for forty-minute periods every day. There is a paraprofessional, however, who rotates among several teachers and is only in this particular classroom two days a week every other week. Total instruction of this component is conducted in English. However students are allowed to speak Spanish with their peers.

Student evaluation is done in two ways: (a) the California Achievement Test is administered twice a year, and (b) the teacher administers a Language Arts test prior to the grade-reporting period in order to assess students' progress as well as to revise the curriculum goals and/or her teaching methods. Instructional materials utilized for English Language Arts are textbooks for spelling, English, and Reading; supplementary reading materials; exercise sheets, charts, and flash cards.

Spanish Language Instruction for Native-Spanish Speakers and for Native-English Speakers

The entire class participates in all the components of Spanish Language Arts. The writing component which consists of capitalization, punctuation, spelling, grammar, and some creative writing is allotted 2 1/2 hours of instruction. Storytelling, choral reading, and discussions on certain topics are considered part of the oral component and are given approximately one hour during the week. The Reading component, which includes oral reading, phonics, and reading comprehension, is taught 2 hours a week. This subject area is taught only in Spanish. Since all the students are either bilingual or Spanish dominant, total instruction in Spanish is not a difficulty. In fact, Spanish is the preferred language by students in and outside the classroom. The classroom teacher is the sole instructor for this subject area, and no students are pulled out during this period. The cultural component is also integrated with this subject area. Typically, a culture lesson is taught in connection with a special holiday. Taught in both languages, these curriculum units are products of the Title VII office. Students are evaluated every six weeks by a test which covers material presented during the previous weeks. These results are for both diagnostic and grade-reporting purposes. Several Spanish textbooks and supplementary materials are utilized in addition to teacher-developed exercise sheets and charts.

Mathematics Instruction

Mathematics instruction is provided for the entire class twice a week for twenty minutes, with the remaining twenty minutes devoted to independent work assignments. During each of the other three days, she works with a slow group of students (six students) and allows the other students to work independently for the entire period. Instruction is primarily in English. The content of instruction covers addition, subtraction, multiplication, division, and measurement of time. The instructional approach is traditional. During the period, the learning disabilities teacher pulls out three students for indiviudalized instruction. The evaluation of the slow group is different from that of the rest of the class. The teacher modifies the tests they receive every six weeks. Usually, they receive

Mathematics problems which are easier than those given to the other students in the class. All results are diagnostic and are used for grade reports going to the students' parents. A basic Mathematics textbook, exercise sheets, charts, and flash cards comprise the instructional materials used in this subject area.

Parent and Community Involvement

In addition to the implementation of the Community Advisory Committee, as mandated by Title VII, there have been several activities which have succeeded in involving more parents and communities in the bilingual project. A newsletter covering project activities is mailed to parents monthly. The news media is used to inform the community on all project activities. Appearances before the Lions Club, the Rotary Club, and other civic organizations by the Project Director have stimulated much interest and support for bilingual activities.

In all three classrooms observed, the extent of parent and community involvement had been minimal. In one classroom, there were only three parent-teacher contacts. In another there were at least ten, with some parents having contact with the teacher a second time. With the exception of a special program at school, which drew twenty parents, there did not appear to be that many occasions at any of the schools visited which provided an opportunity for parent and community participation.

PROJECT 22

PROJECT INFORMATION

Project Context and Target Population

This District serves the inner-city population of a large metropolitan area on the East Coast. The population is multicultural and multiethnic; Spanish-speaking and black residents predominate. The Spanish-speaking population in the District has a diverse composition. Most of the Spanish-speaking students come from the Dominican Republic, Puerto Rico, and Cuba.

The project received its first Title VII grant in 1971-72. At that time there were eighteen classes participating in the project. Each year the number of classes has been expanded to keep the students in the project as they progress through the grades, while the project still serves those entering kindergarten.

During the 1975-76 school year, out of a total of fourteen schools in this district, four public schools and one parochial school are participating in the Title VII program at the kindergarten through sixth-grade levels. In the five participating bilingual project schools there are a total of forty-four public and two parochial bilingual classrooms serving 1,480 targeted students.

The total population in each of the four schools is 60% to 90% Hispanic students. Approximately 50% of the total number of Hispanic students, after taking the locally developed Language Assessment Battery (LAB) were found to "speak English hesitantly" or to "speak little or no English."

Project students come from families with average annual incomes between $6,000 and $8,000, who live in an urban area in multiple-unit dwellings or tenement housing projects for low-income families. Approximately 85% of the project students participated in the free lunch program at each of the four schools. According to the principals interviewed, the mobility rates are high. For example, at one school there is a 49% mobility rate and at another, out of a school population of 1,644, there are only 450 students who have remained in the academic program throughout the elementary school years.

A state decree mandated in 1975 that all Spanish-surnamed students or Spanish-speaking students take the Language Assessment Battery to determine language dominance. Students take the English portion of the LAB test first, and, if they score below the twenty-first percentile, they are then eligible to take the Spanish portion. If they score higher in Spanish, they are then eligible for a type of bilingual program which concentrates on the content areas in Spanish and an intensive English as a Second Language (ESL) program and features the minor areas such as Music and Art instruction in English. Students may enter the program by parental request or consent.

Goals and/or Objectives

The primary goal of the bilingual project in the District is to maintain a bilingual-bicultural instructional program providing for the needs of all targeted students in kindergarten through grade 6 in the four public schools. Another goal is to maintain a normal rate of progress in acquisition and development of skills in both English and Spanish and to develop a student body that is academically successful in the content areas of Reading, Language Arts, and Mathematics through a bilingual project in which they learn in their dominant language while acquiring skills in English as a Second Language. The third goal is continually to enhance the positive self-concept of participating students by making them knowledgeable and appreciative of their cultural heritage and language.

Project Staff

The project is staffed by fifty full-time teachers, one project director, one assistant project director, four bilingual school coordinators, five bilingual resource teachers, forty-seven bilingual professional assistants and/or classroom aides, one school/community liaison, and a curriculum coordinator. (Although Title VII funding pays for a portion of the staffing, the District has absorbed the greater part of the expenses through tax levy monies or other reimbursable funding.)

The information gathered from Teacher/Teacher Aide Questionnaires from the intensive sample shows that all teachers have bachelor's degrees and some have master's degrees in the field of ecuation. Over 75% of the teachers have a bilingual/bicultural teaching credential; the remainder have a standard elementary credential. Half of the classroom aides had bachelor's degrees, but only one of the six held a teaching credential.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	9	6
Total number of questionnaires received	9	6
Highest earned college degree:		
No degree		2
Degree or diploma based on less than 4 years of work		1
B.A. or B.S.	5	3
Teaching credential only		
M.A. or higher	4	
No response		
Type of state teaching credential held:		
Non-credentialed		4
Temporary, provisional, partial-fulfillment, or emergency		1
Regular credential		
Bilingual-bicultural teaching credential	9	
No response		1
Years of full-time teaching experience:		
Less than 1 year		2
1 year	1	
2 years		
3 years	2	2
4 years	2	
5-9 years	1	2
10-19 years	2	
20-29 years	1	
30 or more years		
No response		

Years of teaching in a bilingual program:

	Teachers	Aides
Less than 1 year		4
1 year	1	
2 years	1	2
3 years	4	
4 years	2	
5 years	1	
More than 5 years		
No response		

Amount of college training specifically devoted to bilingual-bicultural education:

	Teachers	Aides
1-5 quarter units (1-3 semester hours)		
6-15 quarter units (4-10 semester hours)	4	3
16-30 quarter units (11-20 semester hours)		1
More than 30 quarter units (more than 20 semester hrs.)	3	
No college training in bilingual-bicultural	2	2
No response		

Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:

	Teachers	Aides
1 day or less		1
2-15 days	3	2
15-30 days	2	3
More than 30 days	4	
None		
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$310,844	
Other Federal and State	-0-	
Other	-0-	
TOTAL	$310,844	
● Per Pupil		$210.03

In addition to the above, the following funds were designated for bilingual project schools:

School A

Federal and State	$260,367	
Other	-0-	
TOTAL	$260,367	
● Per Pupil		$188.26
● Total per pupil additional funds for bilingual project participants		$398.29

School B

Federal and State	$266,567	
Other	-0-	
TOTAL	$266,567	
● Per Pupil		$216.72
● Total per pupil additional funds for bilingual project participants		$426.75

School C

Federal and State	$260,367	
Other	-0-	
TOTAL	$260,367	
● Per Pupil		$210.65
● Total per pupil additional funds for bilingual project participants		$420.68

School D

Federal and State	$221,580	
Other	-0-	
TOTAL	$221,580	
• Per pupil		$146.96
• Total per pupil additional funds for bilingual project participants		$356.99

CLASSROOM INFORMATION

Major Features of Classrooms Observed

- The bilingual school coordinators in each of the four project schools fulfill the need for full-time, on-site coordination of the program. All the coordinators are bilingual/bicultural and are certified teachers with a minimum of five years' teaching experience in the classroom. The coordinator's position in the school directly affects the treatment of each participating student. This person serves as a small-group/individual tutor in the content areas for a limited amount of time every day, a liaison between non-English-speaking parents and school, a materials specialist, an on-site training agent in methodology and curriculum development, an intake counselor for new students entering the program, a community resource counselor, and an internal evaluator of the program on a daily basis.
- There are seventeen bilingual professional assistants serving the four project schools employed under Title VII to increase the effectiveness of the instructional component. All these assistants have bachelor's degrees, and a large percentage have passed state requirements for the city's certificate of competency and are studying to meet the requirements for teaching licenses. The bilingual professional assistants are responsible for small-group and individualized instruction. Some are assigned to a specific class and teacher, while others go from class to class as needed.

Impact Study Samples

One project classroom at each of the grades 2, 3, 4, and 6 was selected at random for observation.

Instructional Strategies for Grade 2

The class enrollment is thirty-five. It is made up of twenty-eight Dominican students, three Puerto Rican students, three South American students, and one student from Central America. The entire class is made up of native-Spanish speakers, and over 50% are Spanish-dominant bilinguals. The teacher and aide are bilingual and of Hispanic descent. There is also a bilingual student teacher who gives individualized English as a Second Language (ESL) instruction and helps with small Reading groups. She is in the classroom ten hours a week.

English Language Instruction for Native-Spanish Speakers

There are sixteen students who receive intensive ESL instruction for forty-five minutes daily. The main intent is to develop skills in oral communication. Time is spent on vocabulary expansion exercises, phonics, listening comprehension, auditory discrimination, substitution drills, and basic sentence patterns. The use of Spanish at this time is allowed only when absolutely necessary. These students are not involved in an English Reading program. They have been grouped according to language needs and are in the process of developing reading readiness skills.

English Language Instruction for Native-English Speakers

There are nineteen students who receive formal English Language Arts instruction. (The sixteen students who receive ESL instruction usually work with the aide at this time on pronunciation and phonics drills apart from the rest of the class. At times these students do participate with the others to develop listening skills in English.) The teacher instructs for thirty minutes daily, and fifteen minutes is devoted to seat work and/or individualized instruction for reinforcement and problems. Time is spent on capitalization, punctuation, spelling, grammar, poetry, storytelling, and sharing to develop written and oral language skills in

English. The teacher's manual from the Bank Street Reading Series is used as a curriculum guide for English Language Arts instruction for full integration with the Reading program.

Students are grouped in three different sections according to ability. The Reading period is forty-five minutes long, and the teacher divides her time for oral reading practice between the three groups. The main intent of the Reading program is to develop the necessary reading comprehension and listening skills in English. Oral language development skills are continuously reinforced. The major instructional materials are the Bank Street Readers.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

The teacher instructs the entire class in Spanish Language Arts for sixty minutes daily. She has included Reading as part of the Language Arts curriculum using the Laidlaw series as the major textbook and workbook ranging from levels 1-1 to 2-2. Time is spent on oral reading skills including proper pronunciation, and on punctuation and comprehension of basic facts. Exercises are based on sequence and interpretation of ideas, grammar, and spelling. Supplementary reading material is available in the classroom as are experience charts and games.

Mathematics Instruction

The teacher has designated two groups for Mathematics instruction, based on language proficiency. The major textbook used is Mathematics, Level 2 (Silver Burdett). One group is made up of twenty-four bilingual students using the English version of the textbook, and the other group of eleven Spanish monolingual student uses the Spanish version of the textbook and is taught in Spanish. The teacher spends approximately twenty minutes with each group on concepts and Mathematics calculations in addition and subtraction. Basic concepts in time, weight, and measurement are taught. Instruction in both groups is based upon the second-grade curriculum guidelines set by the State. Counting beads, the blackboard, and teacher-made materials and exercises are major instructional materials.

Instructional Strategies for Grade 3

The class enrollment of the third grade is twenty-six students: twenty Dominican students, two Cuban students, three Puerto Rican students, and one student from South America. The teacher and aide are bilingual and/or of Hispanic descent.

English Language Instruction for Native-Spanish Speakers

In teaching English Language Arts, the teacher often uses a second-language learning approach which stresses oral language development, since all the participating students (twenty-six) are native-Spanish speakers. Although there is heavy concentration on phonics, pronunciation, and vocabulary expansion, written skills in English are also emphasized. Approximately fifteen to twenty minutes daily are spent on spelling. No major textbook is used for English Language Arts instruction; however, teacher-and district-developed materials are used to supplement instruction in the areas of capitalization, punctuation and grammar.

For Reading, the class is grouped according to ability in Reading and regrouped upon the basis of need. The major textbooks used are from the MacMillan series, ranging from pre-primer level to grade 1. The method employed is an experimental Reading approach which builds upon language that the student already understands and uses. A parallel program of phonics is introduced in order to help the student learn the sound system of the English language. Time is spent in developing basic comprehension skills--sequence of ideas and recollection of facts.

Spanish Language Instruction for Native-Spanish Speakers

Students are not grouped for Spanish Language Arts instruction; however, they are grouped according to ability for Reading in the native language. The teaching approach combines the use of a phonics program, a language-experience orientation to develop written and oral skills in Spanish, and the basal readers and workbooks from the Laidlaw series. The teacher and/or aide spends approximately twenty-five minutes daily with each Reading group and leaves fifteen minutes for individualized instruction using the appropriate workbook to supplement the development of comprehension skills. Approximately twenty minutes are spent daily on capitalization, punctuation, and grammatical structures in Spanish, and twenty-five minutes are spent on spelling and vocabulary expansion exercises.

Mathematics Instruction

Students are divided into two groups according to language proficiency levels rather than ability. The same material is taught in each group. The ten students who receive intensive ESL instruction receive small-group instruction and individual attention with the classroom aide in Spanish. The other group receives bilingual instruction from the teacher. New concepts are presented in Spanish; follow-up and review lessons are presented in English for the purpose of reinforcing the concept as well as of learning and utilizing the appropriate English vocabulary. The Mathematics curriculum for the third grade covers the principles of addition, subtraction, multiplication, division, fractions, percentages, geometry, and basic concepts in measurement and algebraic formulas. At the time of the classroom observation, both groups were being taght the multiplication tables--by flash card method in whatever language the student felt most comfortable.

Instructional Strategies for Grade 4

The total enrollment of the fourth grade is thirty-two students. Ethnically the class is made up of one Central American student, two Cuban students, twenty-three Dominican students, four Puerto Rican students, and two South American students.

English Language Instruction for Native-Spanish Speakers

There are two levels of ESL instruction--beginning and intermediate--taught by different teachers at different grade levels. Thirteen students receive such instruction daily. Spanish is not used unless absolutely necessary as the teaching methodology employed is total immersion in English. There is constant drilling of pronunciation, sentence patterns, sentence completion, and vocabulary building. The major focus of the ESL program is to develop oral language abilities, confidence in speaking, and listening skills. Phonics and auditory discriminations are stressed daily.

At the time of the observation, eleven of the thirteen students receiving ESL were nonreaders. In addition to the regular forty-five minute ESL period, approximately 3 3/4 hours a week are spent on small-group instruction with the classroom aide or individualized instruction with the bilingual coordinator to develop Reading readiness skills mainly focusing upon sight vocabulary and basic decoding skills. When English Reading groups are formed, these eleven students receive intensive ESL instruction.

English Language Instruction for Native-English Speakers

The entire class receives English Language Arts instruction. The approach used is one appropriate for second-language learners, since over 60% of the class is Spanish dominant. Approximately forty-five minutes daily are spent on capitalization, punctuation, spelling, and grammar. Great emphasis is placed upon phonics and pronunciation. Experience charts, short stories, teacher-developed materials, poetry, and prose are all used as media of instruction in English Language Arts. The major goal is to develop an understanding of how the English language functions and to build confidence in oral communication.

For Reading instruction, the class is divided into three Reading groups, based on ability. The designation of levels is determined by a teacher-made scale based on vocabulary usage, punctuation, comprehension, and general reading habits. (The students read different passages, each at a different level ranging from grades 1 through 4. Then, teacher observation and assessment determine the group into which the student is placed.) The major textbook series used is the Ginn 360 Reading Series, ranging from levels 1-2 to 3-2. Approximately twenty-five minutes are spent with each group developing decoding skills through auditory discrimination exercises, phonetic and structural word analysis, sentence patterns, left-to-right orientation, and punctuation. Oral reading and recollection of facts in sequence are also taught. Approximately twenty minutes daily are spent on independent work.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

The class is not grouped for Spanish Language Arts. Approximately forty-five minutes daily are spent on such instruction. There is greater concentration on grammatical structures and spelling than in the teaching of English Language Arts. The importance of correct pronunciation, use of accent marks, punctuation, and capitalization is stressed heavily. Much time is spent on oral and written composition practice, creative writing, vocabulary expansion, dictionary practice, and the use of metaphor and analogy.

For Spanish Reading, the class is divided into two groups according to ability, which is assessed by the teacher. The major textbooks used are from the Laidlaw series, ranging from levels 3-1 to 3-2. Approximately twenty-five minutes daily are spent with each group for (1) oral reading practice emphasizing pitch, intonation, and juncture; (2) comprehension practice in making association, identifying actions, following directions, recollection of facts, and drawing conclusions; (3) expressive language practice in retelling stories, verification of facts, inferential conclusion drawing, and identification of main ideas. During the observation, the major instruction material used was a large clipboard with lined paper, somewhat like an experience chart. The teacher wrote out the story used for the Reading lesson, used a pointer to focus upon phonetic structures and pronunciation, and also outlined the sequence of events as the group recalled the facts. Key vocabulary words in the story were underlined, and comprehension questions were written out. The clipboard was also used for choral reading approximately five minutes daily. The teacher worked with each student in the group individually. Approximately ten to fifteen minutes daily are spent on seat work.

Mathematics Instruction

Students are divided into two groups according to ability and language proficiency. The major textbook used is Matemática (Silver Burdett), Level 4. This is only used as a reference book to supplement board work and teacher-made games, exercises, and drills. At the time of observation, the classroom teacher was working with a group of twenty-one students, and the classroom aide was working individually with four students, one of whom had never attended school before and was at kindergarten level, learning how to count. Approximately forty-five minutes daily are spent on Mathematics instruction which covers the basic fourth-grade curriculum and is taught bilingually. The blackboard is used as the major instructional material so that work problems in addition, subtraction, multiplication, and division may be viewed by all. Each student has his/her own notebook which serves the purpose of a daily Mathematics journal.

Instructional Strategies for Grade 6

The sixth grade has an enrollment of thirty-two students. It is ethnically composed of one Central American student, two Cuban students, twenty-three Dominican students, four Puerto Rican students, and two students from South America. The teacher and aide are both bilingual and of Hispanic descent.

English Language Instruction for Native-English Speakers

Twenty-three students receive fromal English Language Arts instruction daily, while the other ten receive intensive English as a Second Language (ESL) instruction. On a weekly basis, approximately seventy-five minutes are spent on spelling, seventy-five minutes on grammar, and thirty minutes on capitalization and punctuation. The SRA Language Arts Kits are used fifteen to forty-five minutes weekly.

English Language Instruction for Native-Spanish Speakers

There are ten students receiving intensive ESL instruction daily with the classroom aide and/or the bilingual school coordinator. The main focus of the ESL program is to develop appropriate oral language skills. The curriculum includes pronunciation drills, sentence pattern drills, sentence completion drills, and vocabulary expansion drills. The major portion of the forty-five-minute period is spent on structure dialogues and/or controlled conversion in order to develop the understanding that words, word order, and intonation convey meaning. There is no major textbook for ESL instruction.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

The class is not grouped for Spanish as a Second Language (SSL) instruction. The major textbooks used are the Santillana series; *Senda* and *Fichas del Trabajo*, Levels 1 and 5; and from the Laidlaw series, *Por los Caminos del Mundo*, Level 4. The workbooks from each of the series are used as the major instructional materials for Language Arts which is based on grammatical structures, usage, and written composition practice.

For Spanish Reading, the class is divided into four groups based on ability. Approximately twenty to twenty-five minutes are spent with each group which is taught by the classroom aide and teacher. Within each group, approximately ten to fifteen minutes are spent on oral reading practice and/or choral reading. The major emphasis is placed on developing reading comprehension skills.

Cultural Component

The cultural component provides a background in the cultural and historical heritage of participating students in the project. Emphasis is placed upon the interrelationship of culture, language, and self-identity. Teachers make use of district-created cultural units and multimedia materials relating to the content of Caribbean culture in the areas of Social Studies, Spanish Language, History, Art, and Music.

The cultural component makes up part of the overall Social Studies curriculum as prescribed by the city's Board of Education. In one of the schools, in the second grade observed, there is a large concentration of students from the Dominican Republic; therefore, the curriculum is geared to relate to the needs of that population. In the third, fourth, and fifth grades observed, approximately 200 minutes each week are devoted to Social Studies which includes the historical and cultural background of the participating students. Map study skills are also incorporated into the Social Studies curriculum to enhance the students' awareness of geographical origins.

Parent and Community Involvement

In each of the project schools, parents and teachers confer on a formal basis at least three times yearly. On an average, 65% of the parents attend these conferences. In cases where parents are unable to attend, teachers contact them by telephone, or the bilingual coordinator of that particular school visits them at their homes. Less than two-thirds of the parents attend project- and/or district-sponsored functions, such as open houses and class parties. Parents and community members serve on the Advisory Committee which is responsible for making policy decisions related to the bilingual project. At least once a semester the bilingual coordinators hold a workshop with teachers and parents of the participating students in the program to discuss curriculum and project goals. A very small number of parents serve as volunteers in the bilingual classroom.

PROJECT 23

PROJECT INFORMATION

Project Context and Target Population

The district in which the project operates is divided into regions. The Title VII project operates in one of the twenty schools in one region. It is part of the District's comprehensive bilingual/bicultural program which serves as an unbrella for all the different projects within the regions. Basically, the Title VII project calls for bilingual/bicultural achievement centers at the school in which it operates. Although the Title VII achievement centers are part of the District's program, it is funded solely by Title VII and operates as a separate project. The other projects under the district comprehensive bilingual/bicultural program are funded by other federal, state, and local funds.

The Title VII project was initially funded in 1972. It serves 200 students in grades 1 through 6. Approximately 40% of the students are from Spanish-speaking families. The majority of the students come from migrant working families. The school is located in a large industrial city; however, the majority of the families served by this school work in the surrounding farms. The city workers have semiskilled jobs in canning industries and other factories. Average annual gross income for these families is $4,000 to $6,000. Following available jobs results in a high mobility rate which greatly affects student achievement. The problem is intensified because the majority of these students are Spanish dominant and some are Spanish monolingual.

Goals and Objectives

The intent of this Title VII project is to establish within the target school two Bilingual Achievement Centers (one in the area of Reading/ Language Arts and the other in Mathematics/Science). Each center utilizes an individualized approach to instruction. These centers focus upon several critical educational needs: (1) to improve the Reading and Mathematics achievement levels of elementary grade students of limited English-speaking ability, and (2) to upgrade permanently the instructional curriculum for these students.

Additionally, the project provides instruction in the cultural heritage of different groups. The expected outcome is two-fold: (1) Such activities will promote cultural awareness and acceptance among different ethnic groups, and (2) the self-image of students of limited English-speaking ability will be enhanced through the study of positive characteristics and contributions of Hispanics in different fields of human knowledge and interaction.

Project Staff

Project staff includes four teachers, six aides, one curriculum/materials specialist, one project director, one secretary, and one project coordinator. All staff members are Hispanic and English/Spanish bilingual.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	5	5
Total number of questionnaires received	2	1
Highest earned college degree:		
No degree		1
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	1	
Teaching credential only		
M.A. or higher	1	
No response		
Type of state teaching credential held:		
Non-credentialed		1
Temporary, provisional, partial-fulfillment, or emergency	1	
Regular credential	1	
Bilingual-bicultural teaching credential		
No response		
Years of full-time teaching experience:		
Less than 1 year		
1 year		
2 years		
3 years		
4 years		
5-9 years	1	
10-19 years	1	
20-29 years		
30 or more years		
No response		1

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year		
1 year	1	
2 years		1
3 years		
4 years		
5 years		
More than 5 years		
No response	1	
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		
6-15 quarter units (4-10 semester hours)		
16-30 quarter units (11-20 semester hours)	1	
More than 30 quarter units (more than 20 semester hrs.)		
No college training in bilingual-bicultural		1
No response	1	
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less	1	
2-15 days		
15-30 days		
More than 30 days		
None		1
No response	1	

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$110,000	
Other Federal and State	-0-	
Other (Private Foundation)	-0-	
TOTAL	$110,000	
• Per pupil		$550

In addition to the above, the following funds were designated for bilingual project schools:

Federal and State	$270,000	
Other	-0-	
TOTAL	$270,000	
• Per pupil		$370
• Total per pupil additional funds for bilingual project participants		$920

The district average per pupil cost is $1,200. Approximately $2,100 is the average per pupil cost in the bilingual project in this school.

CLASSROOM INFORMATION

Major Features of the Classrooms Observed

With the exception of a classroom that combines grades 3, 4, and 5, the classes observed employ traditional instructional strategies. Only a few students are involved in activities at the Bilingual Achievement Centers. Those students who participate in the morning activities at the Centers join the regular assigned class in the afternoon for Music, Art, Physical Education, Social Studies, etc.

The afternoon schedule of the Centers is modeled after the morning schedule. The students served in the afternoon have already participated in regular school activities with their assigned classes.

Impact Study Samples

Originally, two schools and eleven classrooms were included in the Impact Study samples. Of these, five in one school were comparison classrooms. Changes in district policy regarding integration resulted in reassignment of students to different schools. Eventually, the sample was reduced to include only six classes at one school. Of these, three classes were included in the Intensive Study for classroom observation and data collection.

As previously explained, only a few students in each of the classrooms observed are in the bilingual project. For purposes of the study, the classrooms where these students are assigned were designated as bilingual classes and therefore cover all instructional strategies described. The classrooms observed include one second grade, one fifth grade, and one class that combines grades 3, 4, and 5. The students in the combined class are Spanish dominant.

Instructional Strategies for Grade 2

Major Features

The class observed has a total enrollment of thirty-two students. Twelve students are of Mexican ethnic background, one is South American, nine are black, and ten are white non-Hispanic. The teacher is Hispanic and bilingual. There are two aides that provide instruction during the Reading and Mathematics periods only. Both are white non-Hispanic and English monolingual. Of the total class, only four Spanish-dominant students participate in the Bilingual Achievement Centers. The rest of the class participates in regular school activities only.

English Language Instruction for Native-English Speakers

Native-English speakers receive 6 3/4 hours a week of English Language Arts and Reading instruction. Students receive instruction in English grammar and mechanics, spelling, creative writing, and oral language development. There is no grouping for these content areas. Instruction is for the entire class with tutoring provided by one of the aides.

Reading is separate with grouping according to ability based on grade level material. There are two main groups. One high group works with the teacher, and one medium/low group works with the aide. In addition to regular Reading in the class, seven students from the medium/low group receive Remedial Reading instruction with the Reading specialist. These students spend an additional four hours a week in English language instruction.

Textbooks used in English Language Arts are New Faces, New Places (Follett Co.), Sign Posts (Houghton-Mifflin Co.), and Basic Goals in Spelling (McGraw-Hill Book Co.).

English Language Instruction for Native-Spanish Speakers

The four students that are native Spanish-speakers receive English Language Arts instruction with the entire class. English Reading is taught separately, and an English as a Second Language approach is used. The classroom teacher provides this instruction to the group. Approximately four hours a week are spent in English Reading. The other 2 3/4 hours a week are used for Language Arts instruction. The Spanish-dominant group and the rest of the class use the same textbooks.

Spanish Language Instruction for Native-Spanish Speakers

The four Spanish-dominant students also receive Spanish language instruction. Spanish Language Arts (SLA) is taught twice a week for forty minutes each meeting. The emphasis is on reading with some instruction in Spanish grammar and spelling. The SLA teacher works with only these four students at this time, maintaining the small-group process for individualized instruction. All instruction is based on the Spanish Curriculum Development Center (SCDC) series.

Spanish Language Instruction for Native-English Speakers

There is no Spanish language instruction for the native-English speakers in this class.

Mathematics Instruction

All students receive Mathematics instruction with the regular class. Three and a half hours a week are allotted for Mathematics. There is one aide in addition to the teacher during the Mathematics period. Usually the teacher provides instruction during the first ten or fifteen minutes. Afterward, both the teacher and the aide provide individual or small-group instruction as needed by the students. Instruction is in English; however, the teacher will use Spanish with the Spanish-dominant students when necessary for greater comprehension. Besides the textbook Math for Individual Achievement (Houghton-Mifflin Co.), additional instruction material include exercise sheets, games, and flash cards.

Cultural Component

Only the four Spanish-dominant students that receive Spanish Reading instruction are exposed to the cultural component of the project. During the Reading period, the students have the opportunity to learn more about their culture. Various aspects of the Mexican culture are integrated as reading material in Spanish Reading. Teacher-developed work sheets and displays are used for cultural awareness. The students learn about legends, famous people, art, food, games, and music pertaining to their culture. In addition to the teacher-developed materials, additional cultural knowledge is obtained from the Spanish Reading textbooks.

The cultural component is not a separate unit. Instructional time spent in this subject cannot be calculated since it is integrated with Spanish Language Arts.

Instructional Strategies for Grade 5

Major Features

Of a total of thirty-one students, fourteen are of Mexican ethnic background, one is from Central America, eight are black, and eight are white non-Hispanic. Only one student is Spanish dominant and receives Spanish Language Arts instruction. This student and two other bilingual students also participate in the Acheivement Center for Mathematics instruction. Aside from these two class features, all instruction and activities are with the regular class. The teacher is white non-Hispanic and English monolingual. There is no aide in this class.

English Language Instruction for Native-English Speakers

The entire class receives instruction in English grammar and mechanics, spelling, creative writing, poetry, phonics, and comprehensive reading. There is no special grouping for instruction in these areas. Approximately eleven hours a week are allotted for English language instruction. At this grade level, much independent work is assigned. The teacher provides as much individual instruction as possible during periods of independent work.

Five students in this class also receive Remedial Reading instruction with the Reading specialist. An additional four hours a week are spent in English Language Arts (ELA) by these students.

The Controlled Reading Series (Education Development Laboratories) and Basic Goals in Spelling are the main textbooks used in the class. Additional instructional material includes workbooks, charts, and cassettes for listening comprehension.

English Language Instruction for Native-Spanish Speakers

There is only one Spanish-dominant student in this class. The student receives all English language instruction with the regular classroom.

Spanish Language Instruction for Native-Spanish Speakers

Aside from the grade level material studied, there is no difference in instructional strategies as used for the Spanish-dominant student in the second grade observed. (See the Spanish Language Instruction for Native-Spanish Speakers section of Instructional Strategies for Grade 2.)

Spanish Language Instruction for Native-English Speakers

There is no Spanish language instruction for native-English speakers.

Mathematics Instruction for Native-English Speakers

Four hours a week are allotted for Mathematics instruction. Of the thirty-one students, twenty-eight receive instruction with the regular class. All instruction is in English and is directed to the entire class. Usually the teacher assigns work or presents new material the first ten or fifteen minutes of class time. Afterward, the teacher provides individual instruction as needed by each student. The textbook Sets and Numbers (Singer Co.) is used by the class.

Mathematics Instruction for Native-Spanish Speakers

The other three students receive Mathematics instruction in the Achievement Center. Instruction is individualized, and each student works independently from the rest of the class. Although the teacher and the aide are bilingual, the materials are all in English. Direct translation is made when necessary for better understanding. The textbooks and materials used in the Mathematics laboratory are Exploring Elementary Mathematics (Holt Co.), Elementary Mathematics (Heath Co.), Learning New Skills in Math (Continental Press), Modern School Mathematics (Houghton-Mifflin Co.), and the SRA series which includes Fact Kit and Comptapes.

Cultural Component

There is no cultural component for this class. Only one Spanish-dominant student is exposed to the cultural component in Spanish Language Arts. Aside from the grade level material studied, there is no difference in instructional strategies as used for the Spanish-dominant students in the second grade observed. (See Cultural Component section in Instructional Strategies for Grade 2.)

Instructional Strategies for the Combined Grades 3, 4, and 5 English as a Second Language Class

Major Features

There are thirty students in the combined grades 3, 4, and 5 English as a Second Language (ESL) class. All the students are Hispanic. Eleven are Spanish-dominant, fifteen are bilingual, and four are English-dominant. The four English-dominant students have been placed in this class in an effort to obtain higher achievement in English Language Arts. The instructor and the aide are Hispanic and bilingual.

Basically, there are four groups, two beginner and two advanced. In the morning, one beginner group and one advanced group receive English language instruction while the other two groups receive Mathematics and Spanish Language Arts instruction plus involvement in regular school activities. In the afternoon, the two groups in the morning ESL class receive instruction in other subject areas while the other two groups receive English language instruction.

English Language Instruction for Native-English Speakers

The four native-English speakers receive English as a Second Language instruction with the rest of the class.

English Language Instruction for Native-Spanish Speakers

A total of 11 1/4 hours a week are spent in the English as a Second Language lab. The students receive instruction in English grammar and mechanics, spelling, creative writing, phonics, and comprehensive reading. Usually there are three task centers in the lab. One center is for oral reading with the teacher, another center is for written and oral work with the aide, and the third center is for independent work using audiovisual equipment, including tapes, cassettes, records, and film strips, for listening comprehension and reading improvement. Each student has the responsibility of completing assigned tasks at each of the three centers.

Instruction is in English, often with the use of direct translation. The textbooks used are Learning American English (Grant-Taylor), American English (Heath Co.), and the Education Development Laboratories series.

Spanish Language Instruction for Native-English Speakers

The four native-English speakers receive Spanish language instruction with the rest of the class.

Spanish Language Instruction for Native-Spanish Speakers

Other than the number of students in the class and the grade level materials being studied, there is no difference between the instructional strategies for this group and those used for the Spanish-dominant student in the second grade observed. (See Spanish Language Instruction section in Instructional Strategies for Grade 2.)

Mathematics Instruction

This class studies Mathematics in the Achievement Center. All instructional strategies and materials are the same as those for the Spanish-dominant students in the fifth grade observed. (See Mathematics Instruction section in Instructional Strategies for Grade 5.)

Parent and Community Involvement

The operational design of the project includes a parental/community involvement component. The Bilingual Advisory Council provides input in the planning activities, and evaluation of the project. Besides the Council, provision has been made for a parent education component which includes parents in inservice training workshops along with the project staff.

Parents are encouraged to attend and participate in school board and advisory council meetings. Direct communication is also maintained by the teachers through parent conferences and involvement in classroom activities.

PROJECT 24

PROJECT INFORMATION

Project Context and Target Population

The District serves a city of 65,000 people. Eighty-five percent of the city's population is of Mexican-American descent; 14% is white non-Hispanic; and less than 1% is black. According to the 1970 census, 47.6% of the total population is living below the poverty level.

Project 24 began in the 1971-72 school year with twenty-six teachers and twelve elementary schools involved in instructing 652 students at the kindergarten level. The project served a total of 1,503 third- and fourth-graders in thirteen different schools during the 1975-76 school year. In addition, Title I funding and supplementary local funds supported bilingual education in kindergarten through grade 2 for over 2,880 students. The previous year, 1,562 students in the second and third grades received bilingual instruction through Title VII, and the rest were funded through Title I, state, and local monies.

The District serves an area of approximately 90 square miles and consists of eighteen elementary schools, four intermediate schools, three high schools, and one school for exceptional students. The total student enrollment at the end of January 1975 was 21,016, which represents an increase of about 420 over the enrollment at the same time the previous year.

The geographic area served by the school district has had a Spanish-speaking tradition and culture for many generations. Of the total district enrollment, approximately 75% of the pupils are Spanish-dominant bilingual and a significant proportion enter school speaking only Spanish. Because of its proximity to Mexico, the school district is additionally faced with incorporating approximately 800 Mexican immigrants who enroll annually. Approximately 85% of the students are Mexican-Americans; of these, the majority encounter considerable difficulty in acquiring the skills of basic English.

In most project schools, the population is almost 100% Mexican-American. There is no separation of students by language or ethnic background in the two schools where some white non-Hispanic students participate in project activities. Parents are free to choose the school they prefer for their children since the school district has a non-zoning system. According to some principals interviewed, the majority of the white non-Hispanic students attend private schools.

The majority of the principals interviewed indicated that the housing pattern in their school attendance area consists of both single-unit dwellings and multiple-unit dwellings which are mostly housing projects or apartments. The housing conditions in many project school attendance areas are considered to be extremely poor. Many families live without the use of electricity and running water, and disease is a major problem in the target population areas.

The majority of the school principals interviewed estimate the average gross annual income maintained by the families in their school attendance area to be approximately $4,000. Most heads of families are employed as laborers and semiskilled workers. Some are farm workers. The mobility rate varied from 5% to 22% in schools participating in the project. Some areas seem to be more established than others. Those schools with higher mobility rates serve target areas where most families live in housing projects or are migrant farm workers.

While the District has a special seasonal migrant school, a number of migrant students attend project schools by choice. Provision is made by the District to include these pupils in the regular curriculum. They receive services offered to Title I and Title VII pupils plus extra tutorial Reading and Mathematics classes.

Goals and/or Objectives

The basic pedagogical philosophy the project strives for is one of humanistic instruction. The aim is to facilitate the growth of a bilingually/biculturally functioning person who feels good about himself/herself and can relate well to others. The project goals for the academic year 1975-76 include the implementation of a series of innovative approaches in bilingual education:

- New curriculum and instructional models relevant to student needs
- Meaningful community participation
- Innovative instructional materials which will reflect the experience of the students
- Staff development in which the university will play a major role
- An evaluation design to measure the achievement of project objectives

Project Staff

The project staff consists of the Project Director, one community/school liaison, three curriculum/materials specialists, and twenty-five aides (one for every two classrooms). All of these project staff are employed full-time and are bilingual Hispanics. In addition to this staff, a part-time professional consultant and fifty full-time teachers (of whom forty are Hispanic and ten are white non-Hispanic) participate in the project. The teachers are funded by state and local funds. Forty-five of these teachers are bilingual, and five are English-dominant. Approximately 90% of the project teachers are bilingual, and all have at least a bachelor's degree.

In addition to this bilingual staff, there are also two full-time psychologists, twenty-three full-time learning disabilities teachers, four full-time speech and hearing specialists, and approximately twenty-six volunteers within the school district.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	10	10
Total number of questionnaires received	9	7
Highest earned college degree:		
No degree		6
Degree or diploma based on less than 4 years of work		1
B.A. or B.S.	5	
Teaching credential only	1	
M.A. or higher	3	
No response		
Type of state teaching credential held:		
Non-credentialed		5
Temporary, provisional, partial-fulfillment, or emergency	3	
Regular credential	6	
Bilingual-bicultural teaching credential		
No response		2
Years of full-time teaching experience:		
Less than 1 year	2	1
1 year	1	
2 years		1
3 years		
4 years	2	1
5-9 years	3	2
10-19 years		1
20-29 years	1	
30 or more years		
No response		1

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	6	2
1 year	1	
2 years	2	1
3 years		2
4 years		1
5 years		
More than 5 years		1
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)	1	1
6-15 quarter units (4-10 semester hours)		
16-30 quarter units (11-20 semester hours)		1
More than 30 quarter units (more than 20 semester hrs.)		
No college training in bilingual-bicultural	8	4
No response		1
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less	1	1
2-15 days	6	4
15-30 days	1	
More than 30 days	1	
None		2
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$260,000	
Other Federal and State	-0-	
Other	-0-	
TOTAL	$260,000	
• Per pupil		$173.00

In addition to the above, the following funds were designated for bilingual project schools:

All Project Schools:

Federal and State	*	
Other	-0-	
TOTAL	*	
• Per pupil		$221.00
• Total per pupil additonal funds for bilingual project participants		$394.00

* Federal and state funds which are primarily from Title I and the Title I Migrant Program are allocated equally across schools on a per pupil basis.

CLASSROOM INFORMATION

Impact Study Samples

Out of five third-grade bilingual classrooms selected to participate in the AIR Impact Study, one was randomly selected to be included in the intensive sample for more detailed observation. Out of five fourth-grade classrooms selected to participate in the AIR Impact Study, two were randomly selected for detailed classroom observation in this study.

Instructional Strategies for Grade 3

Major Features

This third-grade classroom consists of thirty-three Mexican-American students of whom eight are English monolingual. No second language instruction is given formally. However, English as a Second Language teaching is incorporated into all other areas for the benefit of the Spanish-dominant students. Some Spanish Language concepts are introduced informally to the eight English-dominant students. However, Spanish is not stressed by the teacher, who emphasizes English language skills.

English Language Instruction for Native-English and Native-Spanish Speakers

Written Language Arts instruction covers capitalization, writing mechanics, spelling and grammar. The class spends approximately one-half hour daily on direct instructional time and about one-half hour daily on independent written Language Arts work. The teacher primarily teaches by an entire-class, question-answer technique and supplements this with some group instruction. The aide mostly works with students on an individual basis, especially with those who are non-English-speakers.

Oral Language Arts instruction takes place in the form of poetry, storytelling, choral reading, and sharing skills. The teacher estimates that approximately fifteen minutes a week are devoted to these skills.

Phonics and library skills are taught on an entire-class basis. Four non-English speakers receive individual instruction in Reading from the aides while the teacher instructs three different reading groups in turn. Group A consists of ten high-ability bilingual students; Group B, of ten medium-ability bilingual students; and Group C, of thirteen Spanish-dominant low-ability students. The criteria for designating the grouping pattern are based upon the previous year's ability grouping plus teacher observation and pretest scores. Major textbooks include Adventures in English, Experiences in English, and the Reading series, Air Pudding and Wind Sauce (Economy).

While no Remedial Reading or Mathematics programs are provided at the third-grade level, three students participate in Language Learning Disabilities (LLD), speech disabilities, and oral English language disabilities programs.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

No written and oral Spanish Language Arts instruction is given separately in this classroom since the teacher concentrates on developing English skills. Spanish Reading is held once a week, and the students are grouped by ability. They are rarely regrouped.

According to the teacher interviewed, 1/2 hour a week is spent on direct or guided instruction and about forty-five minutes are devoted to independent work. The major skills covered are phonics and Reading comprehension. Both the aide and the teacher participate in Spanish Reading instruction and use the textbook, Senda, Lengua Nacional 3 (Educacion Santi Uana). The teacher indicates, however, that this Reading series is very difficult for the students in her class.

Mathematics Instruction

Mathematics instruction is given for forty-five minutes daily on a whole-class basis. The teacher uses both Spanish and English and covers the skills of addition, subtraction, and multiplication. New math concepts are employed by using the textbook, Elementary School Mathematics (Addison-Wesley). The bilingual aide works with students needing individual help and occasionally groups the students for extra help in specific skills.

The teacher estimates that approximately fifteen minutes daily are devoted to independent work while twenty minutes daily are devoted to director-guided instruction.

Cultural Component

A cultural component is not taught separately in this classroom but is incorporated into other subject areas. The cultural activities include studying Art, legends, games, Geography, History, Music, people, and holidays. Both Spanish and English are used during the course of the particular activity. The teacher estimates that approximately one hour a week (twice a week) is devoted to these activities within their related subject areas.

Instructional Strategies for Grade 4

Major Features

One fourth-grade classroom consists of twenty-nine students and the other, of thirty-two students. The ethnic composition of both classrooms is 100% Mexican-American. The larger classroom acquired a new first-year teacher during the 1975-76 school year. The smaller classroom is situated in a school which uses a team-teaching instructional approach and uses specialized teachers for Physical Education and Music instruction.

English Language Instruction for Native-English and Native-Spanish Speakers

The large class receives written Language Arts instruction on an entire-class basis from the classroom teacher while the aide supplements the teacher instruction on an individual basis with five students. The smaller classroom is divided among three team teachers according to reading groups for written language instruction. Both fourth-grade classrooms receive 2 1/2 hours of written Language Arts. Approximately half the time is utilized for instruction and the other half for independent study.

Oral Language Arts is taught by the same grouping arrangement as in written Language Arts for each respective classroom. One classroom emphasizes poetry, storytelling, and sharing skills while the other emphasizes storytelling, choral reading, and sharing. While the larger classroom spends approximately two hours a week on oral Language Arts, the other spends an average of about one-half to one hour a week.

Both fourth grades consist of four ability-grouped reading clusters ranging from high to low/remedial. The classroom aide in both classrooms assists only with the low reading groups. Again, the larger classroom receives instruction mainly from the bilingual classroom teacher while the other is divided among three teachers. In the team-teaching situation, the bilingual teacher is paired with two English-monolingual, non-Hispanic teachers. The bilingual teacher is responsible for the two low groups which consist of two low-ability Spanish-oriented students in each section.

Each classroom receives five hours of Reading instruction on a weekly basis. In addition to the grouping for written and oral Language Arts in the team-teaching situation, the bilingual teacher also covers some of these topics by a whole-class approach during her homeroom section. The criteria for grouping are based upon diagnostic tests, teacher observation, and the previous year's records. Groups change rarely. Both fourth-grade sections use the Reading series, Windows, Doorways, and Bridges (Scott Foresman) and Exploring in English (Laidlaw).

Spanish Language Arts for Native-Spanish and Native-English Speakers

Spanish Language Arts is taught on an entire-class approach in the self-contained classroom. Written Language Arts skills include capitalization, punctuation, and spelling. Oral Language Arts consists of poetry and choral reading. Reading comprehension, phonics skills, and oral and written Spanish Language Arts are not taught separately, but rather as one subject.

Both the classroom teacher and the aide participate in Spanish instruction which for the most part consists of oral drills. Three students of high Spanish reading ability receive extra individual attention. Approximately 2 1/2 hours a week are devoted to the instruction of Spanish in this class.

The other classroom receives Spanish instruction on an entire-class basis as well as in groups by the bilingual teacher and aide. The class is divided into four groups consisting of six to eight pupils each. Written Language Arts skills include capitalization, punctuation, spelling, and grammar. Approximately fifteen minutes a week is spent on actual instruction and about 1 1/2 hours a week is spent on independent study in this area within the Reading period.

Oral Language Arts consists of dramatic arts, poetry, storytelling, choral reading, and sharing. Approximately half a week is devoted to these oral skills. Phonics and reading comprehension skills are taught for about 2 3/4 hours a week to the four rotating groups. Thus each group receives about one half hour of direct Reading instruction and is involved the rest of the time with independent work assisted by the aide. The criteria for grouping here consist of diagnostic tests, skill checklists, and teacher observation in both English and Spanish skills. Both fourth grades use the textbook, Senda 4, Lengua Nacional (Santillana). The latter classroom also uses the textbook, Horas Encantadas.

Mathematics Instruction

The larger classroom receives Mathematics instruction on an entire-class basis from the teacher, and those who need supplemental help receive extra tutorial help from the aide as the need arises. The skills covered by this class consist of addition, subtraction, and multiplication with some geometric and algebraic concepts. An average of 2 1/2 hours a week are devoted to Mathematics instruction in this class. Approximately fifteen minutes are spent daily on actual instruction and another fifteen minutes on independent work.

The smaller classroom is divided into three ability groups ranging from high to low. The bilingual teacher and aide instruct the high group while the two English monolingual teachers instruct the medium and low groups. The groups range from seven to ten students each and receive 4 1/2 hours of Mathematics on a weekly basis. Approximately three hours weekly are spent in actual teaching time and about 1 1/2 hours on independent work. The skills covered include the same as those mentioned for the previous class with the addition of fractions and measurement skills.

Instruction takes place in the form of drills, boardwork, and games. Both classrooms use modern Mathematics techniques and employ the textbook, Exploring Elementary Mathematics (Holt, Rinehart & Winston). Both classrooms receive Mathematics instruction in English only.

Cultural Component

There has been no cultural component in the larger classroom. However, the new teacher planned to incorporate a cultural component covering all topics ranging from Art to History within the Social Studies hour during the latter part of the 1975-76 school year.

The other classroom receives culturally related instruction informally during the Art, Music, and Social Studies units. Both the teacher and the aide participate equally in the instruction, and both languages are used. All topics, including those about fine arts and the social sciences, are covered. Approximately one half hour a week is devoted to such topics.

Parent and Community Involvement

The Bilingual Parent Advisory Council consists of twenty-six members who meet regularly and contribute to the planning, development, and evaluation of the project. During the current year, the project has made use of newspapers, the radio, and newsletters in addition to lectures and slide presentations to disseminate information about the project to the community and increase public awareness of the project. The community liaison has participated in community work through the following activities: home demonstrations on bilingual education, sending out monthly newsletters, coordinating parent/classroom involvement, home visits in most school areas, phone contacts with many parents, distributing questionnaires to parents, and potlucks at several schools.

The teacher indicated that approximately nine or ten parents attend the P.T.A. meetings monthly and that about the same number participate in student conferences each semester. Other activities which draw the parents to the school include Charro Days festivities and the Food Stamp Committee activities. According to the teacher interview information, no parents participate in any other classroom function in this class.

Parents of students from both classrooms attend special events such as school carnivals and activities held during Charro Days and Public School Week. Each semester at least six parents visited each school for student/teacher conferences. Five to ten parents attend P.T.A. meetings. In the smaller class, at least three parents participated in yearly field trips, and about four parents have assisted with class parties each semester.

PROJECT 25

PROJECT INFORMATION

Project Context and Target Population

The school district that this project serves is located near the Mexican border. It is one of thirty-one school districts in the state whose total pupil enrollment is more than 80% Mexican-American. A school survey in 1973 identified 50% of the student population as educationally disadvantaged, with 50% of the students coming from low-income families and approximately 33% of the student population being migrant. The project was implemented during the 1971-72 school year to provide the special kinds of services and activities which were needed by many of the students enrolled in the school district. There exists a continuous influx of persons, language, music, and other influences that guarantee a continuing need for programs for children with special educational needs related to their limited English-speaking ability.

There are sixteen schools in the District (thirteen elementary schools, two junior high schools, and one high school). For the on-site observations and interviews, twelve school principals were interviewed for general information on the communities their schools served. At six schools the principals reported that the language most often used outside the classroom was Spanish. Principals at the other six schools stated that both English and Spanish were spoken. The majority of principals also felt that most families were Spanish/English bilingual. Four principals gave different estimates and indicated that their communities were primarily Spanish monolingual. The estimate given for English monolingual families did not exceed 20% for any of the areas served by the twelve schools. Of the total school enrollment at all twelve schools, the percentage of Mexican-American students exceeded 90%. There were very few black or Asian students. Those students with non-Hispanic surnames were students of mixed parentage (Mexican/white non-Hispanic). The combined enrollment for these twelve schools during the 1975-76 school year was 8,224. All families reside primarily in single units on small lots. A large number own their own property. The dominant occupation for family heads is farm labor and/or semiskilled work. Three of the school principals also mentioned other occupations of family heads: office workers, skilled laborers, farm owners, and professionals. The average gross annual income of families was estimated to be under $8,000.

Principals varied considerably in their responses to questions about transiency among students. Mobility is influenced by the major occupation of families--farm labor. Therefore, the high estimates were made with reference to the migrant population that leaves during April and May and returns to the area during October and November. Of the sample of principals who were interviewed, three stated that the mobility rate in the schools was 12% to 18%; four indicated 20% to 26%; three estimated it to be between 30% and 40%; and two figured theirs was between 45% and 50%.

The Board of Trustees of the District supported the concept of bilingual/bicultural education by issuing a policy statement which declared its commitment to provide for the special educational needs of students of limited English-speaking ability. As a result, a bilingual/bicultural mode of instruction has been provided by the District for the last four years not only under federal but also under local and state auspices.

Goals and/or Objectives

The following are the goals of the project:

- To enable those students in the project to become functional in speaking, reading, and writing in English and Spanish
- To enable those students in the project to appreciate the two dominant cultures in the area
- To prepare those students in the project to function at their maximum conceptual capabilities in the educational institutions of this country

- To provide means for the students to retain the positive self-image with which they first enter school

Instruction is designed for both the Spanish- and the English-dominant student. Essentially the plan follows a "modified maintenance" approach. The bilingual/bicultural project states that the student who enters school knowing little or no English will be exposed to a Spanish-language-dominant curriculum in kindergarten through the first five months of the first grade. This curriculum includes Spanish Reading, Spanish instruction in the subject areas, and English as a Second Language. Individual differences determine how long the student remains in a Spanish-dominant curriculum.

During the period from the second half of the first grade through the sixth grade, the plan calls for the student to receive (a) an English-dominant curriculum; (b) instruction in English as a Second Language; and (c) thirty-to-forty-five minutes of instruction in Spanish Language Arts and content area vocabulary and concepts. It is recognized that the transition from Spanish to English will be gradual. Students who know little or no English and who enter school at a level other than kindergarten begin the bilingual instructional project upon entrance into school.

English-dominant curriculum follows a different plan. From kindergarten through the sixth grade, the student will be exposed to (a) an English-dominant curriculum; (b) Spanish as a Second Language instruction for thirty to forty-five minutes daily; and (c) eventually instruction in Spanish Language Arts and content area vocabulary and concepts. As was true of the Spanish-dominant student, those students who enter at a level other than kindergarten will begin the bilingual project at the time of entrance into school. Individualized programs are prepared for these students on the basis of individual differences.

The Spanish-dominant curriculum for the English-dominant student is an enrichment program. Participation is purely voluntary on the part of the students.

To successfully implement the preceding instructional plan, staff personnel require adequate preparation. The project proposes to incorporate the following areas in staff development: (1) bilingual/bicultural education; (2) competency-based teacher education; and (3) a field-experience component as part of an elementary school demonstration setting. Therefore, the goals of the staff development component are the following:

- To train teachers in instructional competencies essential in a bilingual/bicultural classroom
- To implement part of this training through an accredited university teacher-education program leading toward a degree with a specialization in bilingual/bicultural education
- To establish a teacher-training center in an elementary school incorporating the field experience dimension

These above objectives are achieved by several acitivites as described below.

Informal Meetings

Periodic sessions are scheduled for special groups of teacher-participants to assess the progress of the project goals and to present new information to those involved. The project supervisors assemble these small groups by grade levels or by specific curriculum content. Competencies are identified and assigned to the participants for continuous diagnosis, demonstration, and evaluation.

Workshops and Seminars

Special work sessions on specific topics, such as attitudes toward and the history and philosophy of bilingual/bicultural education, are arranged as a component of the regularly scheduled, district-wide inservice program. Ten sessions were conducted during the regular school day with release-time provided. The resources of a local university, the Regional Service Center, and the school district were utilized.

College Credit Courses

Courses which are part of the local university bilingual/bicultural education program were offered for undergraduate and graduate credit. It was anticipated that an equal number of teachers and teacher aides would enroll in the eighteen semester-hour credit sequence of courses.

Parent and Community Involvement

Efforts are directed at involving parents and community in special acitivities: (1) monthly open public meetings announced in advance through the local media; (2) periodic observation of project activities by the advisory council; and (3) participation of the advisory council in program planning, implementation, and evaluation.

A school/community liaison agent conducted neighborhood meetings at parents' homes to keep them informed of the project's progress and to solicit their input for improving the project. Other activities that were initiated included: (1) individual home visits by the community agent; (2) parent volunteers in the classroom; and (3) neighborhood projects initiated and carried out by the community agent.

Project Staff

The entire bilingual/bicultural project classroom staff consists of 180 teachers. Approximately 165 teachers are Hispanic and "socially" bilingual. The remaining number are non-Hispanic and English monolingual. One hundred and fifty of these teachers have taught in the project for a minimum of two years. Twenty-six teacher aides are funded by Title VII. With the exception of one English-dominant, non-Hispanic teacher aide, all teacher aides are bilingual and Hispanic. The majority have been involved with the project for less than three years. A total of fifteen schools were involved in the project, and 5,127 students participated in the instructional program from kindergarten through grade 6.

The project staff was composed of five teacher-trainer/curriculum specialists who are bilingual and Hispanic and who have been part of the project for at least four years. The community liaison is bilingual and Hispanic and has been affiliated with the project for the past four years. The internal evaluator and the Project Director are Hispanic and bilingual and have worked in the project for three years. Professional consultants are hired on a per diem basis. During the 1975-76 school year, three consultants (one, non-Hispanic and English-dominant bilingual; two, Hispanic and balanced bilingual) worked with the project teachers.

The state bilingual agency and district administrative personnel have supported the project in numerous ways: (1) by providing technical assistnace consultants; (2) by disseminating relevant information concerning bilingual education; (3) by sponsoring teacher-training programs such as workshops; and (4) by making available special resources such as audiovisual materials, library and instructional books, etc. The District has been cooperative in providing the 180 classroom facilities and the logistical support (fund accounting, auditing procedures, etc.).

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	32	32
Total number of questionnaires received	30	13

Highest earned college degree:

	Teachers	Aides
No degree		13
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	21	
Teaching credential only	3	
M.A. or higher	6	
No response		

Type of state teaching credential held:

	Teachers	Aides
Non-credentialed		13
Temporary, provisional, partial-fulfillment, or emergency	9	
Regular credential	15	
Bilingual-bicultural teaching credential	6	
No response		

Years of full-time teaching experience:

	Teachers	Aides
Less than 1 year		4
1 year	2	
2 years	2	4
3 years	3	2
4 years	2	1
5-9 years	7	2
10-19 years	8	
20-29 years	5	
30 or more years	1	
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	10	4
1 year	6	1
2 years	4	2
3 years	2	2
4 years	1	1
5 years	1	
More than 5 years	1	1
No response	5	2
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)	4	2
6-15 quarter units (4-10 semester hours)	4	1
16-30 quarter units (11-20 semester hours)	2	
More than 30 quarter units (more than 20 semester hrs.)	5	
No college training in bilingual-bicultural	10	8
No response	5	2
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less	3	2
2-15 days	10	
15-30 days	2	
More than 30 days	7	2
None	4	6
No response	4	3

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$298,017
Other Federal and State	233,088
Other	-0-
TOTAL	$531,105

• Per pupil	$103.59

In addition to the above, the following funds were designated for all bilingual project schools:

Federal and State*	
Other	-0-
TOTAL*	

• Per pupil	$197.48
• Total per pupil additional funds for bilingual project participants	$301.07

*The figures for federal and State funding received by each school are not available. Total monies received by the District for elementary schools are as follows:

State Compensatory Education	$240,000
ESAA Basic Grant	90,676
Title I	934,003
Migrant Program	1,123,475
Title IV (Part B)	56,000
TOTAL	$2,444,154

This total divided by the District's elementary school enrollment gives an average per pupil additional funding of $197.48. This is over and above an approximate district per pupil cost of $800.

CLASSROOM INFORMATION

Impact Study Samples

During the 1975-76 school year, there was a reorganization in the project. Project participants were mixed with non-project students. Essentially, classrooms in kindergarten through grade 2 were all considered bilingual since the state had mandated bilingual instruction for these grade levels. In grades 3 through 6, comparison classrooms were selected along with bilingual and "mixed" classrooms (the latter two types were also found in grade 2). "Mixed" classrooms were defined as those classes that were provided bilingual instruction during one class period but were otherwise taught by a English monolingual teacher. In other words, these were team-teaching situations. For the Impact Study, fifteen schools were involved in the testing (thirteen elementary schools and two junior high schools). Thirty-four classes were randomly selected from grades 2 through 6. The grade level breakdown was as follows: eight classes, grade 2; eight classes, grade 3; six classes, grade 4; eight classes, grade 5; and four classes grade 6. In some cases, there was only one class in the designated grade level.

For the on-site visitation, sixteen classes from six schools were randomly chosen: four second grades--one mixed, three bilingual; four third grades--one mixed, two bilingual, one comparison; two mixed fourth grades; four fifth grades--three mixed, one bilingual; and two bilingual sixth-grade classes. The bilingual classes at the sixth-grade level and those in a few of the lower grade levels are not self-contained but are departmentalized. For example, in the junior high school there are "bilingual education" periods. Four such classes were randomly selected. The following description documents the educational program for these classrooms.

Instructional Strategies for Grade 2, School A

The total enrollment of the two second-grade classes observed was fifty-three with an ethnic composition of fifty-two students of Mexican descent and one white non-Hispanic student. The second-grade bilingual classes were team taught. Of the two teachers observed, one was of Mexican descent and bilingual and the other was white non-Hispanic with little Spanish-speaking ability. The two classroom aides were of Hispanic descent and bilingual. Of the fifty-three students observed, forty-two were bilingual, ten were Spanish dominant, and one was English dominant.

English Language Instruction for Native-English and Native-Spanish Speakers

Students were not grouped for language instruction. They remained with the homeroom teacher for forty-five minutes daily. Areas of concentration were capitalization, punctuation, spelling, grammar, poetry, storytelling, and sharing. The major textbooks used were Listening, Reading, Talking, and Writing: Experiences in Language, (Scott Foresman and Co.). Approximately thirty minutes of the language period were spent on oral language development.

Students were divided between the team-teachers for Reading instruction. This grouping was based on ability. Emphasis was placed on listening comprehension, oral reading, vocabulary expansion, phonics, and comprehension. Students spent approximately forty-five to sixty minutes daily in Reading groups, with individualized instruction based on need. The major textbooks and workbooks used were Sun and Shadow, Going Places/Seeing Things, and World of Surprises at appropriate levels (Harcourt Brace Jovanovich, Inc.). To supplement instruction, teachers made use of experience charts, vocabulary games, and peer-tutoring.

Ten Spanish-dominant students received instruction in English as a Second Language for thirty to forty-five minutes daily with the classroom aides. The overall goal of the (ESL) program was to develop oral language competency skills. The approach used was total immersion. Areas of concentration were spelling, vocabulary expansion, grammar, dictation, composition, pronunciation, sentence patterns, sentence completion, substitution drills, free discussion and sharing, plays, skits, poetry, oral/silent reading, comprehension, and literature/stories. All materials were teacher prepared and/or locally developed. There was no major textbook used. Vocabulary games, grammar drills, pronunciation drills, experience charts, flash cards, tape recorders, and library materials were used for instruction aids.

Spanish Language Instruction for Native-English Speakers

One student received Spanish as a Second Language (SSL) instruction for forty-five minutes daily. She received an individualized program and worked with the classroom aide. Major areas of concern were the development of Reading readiness skills, vocabulary expansion, basic grammar, and the acquisition of overall oral language skills. The textbooks used were Senda 1° Lengua Espanola (Educacion Santillana) and the Mi Libro Magico (Editores Enrisue Gainz). To supplement instruction, the classroom aide developed work games, flash cards, visuals, alphabet trays, and experience charts.

Spanish Language Instruction for Native-Spanish Speakers

Students were divided between the team-teachers according to reading ability based on locally developed assessment instruments and teacher observation. Emphasis was placed on capitalization, pronunciation, punctuation, spelling, grammar, creative writing, non-fiction, plays, poetry, skits, storytelling, choral reading, sharing, phonics, and reading/listening comprehension skills. The major textbooks used were Bueno Amigo/Libro Primero de Lectura (Curriculum Division, Region I - Education Service Center) and Senda 2°/Lengua Espanola (Educacion Santillana). Approximately one half of the students were taught by one of the team-teachers and a classroom aide; the other students received instruction from the classroom aide since the teacher had limited Spanish-speaking abilities. Approximately forty-five minutes daily were spent on language and Reading instruction.

Mathematics Instruction

Students remained with the homeroom teachers for Mathematics instruction and were grouped according to individual needs rather than ability. All students used Exploring Elementary Mathematics, Level 2, (Holt, Rinehart & Winston, Inc.) as the major textbook. Approximately fifteen minutes were spent on concepts, thirty minutes on application, and ten to fifteen minutes on independent seat work daily. The curriculum covered addition, subtraction, multiplication, division, fractions, measurement, time/weight, and new math.

Cultural Component

Approximately thirty minutes daily were spent on Mexican heritage. Units were developed by the District's bilingual office for use in the classroom. Emphasis was placed on studying holidays, Music, famous people, Geography, History, fables and legends, community awareness, and the family. Hispanic culture was reinforced in the Spanish language class through literature and stories.

Parent and Community Involvement

Parents and teachers conferred whenever necessary. If the parent was not able to come to the school, the teacher went to the home or conferred with the parent by telephone. A formal open house was held yearly, and approximately one half of the parents attended. Once every semester parent/teacher meetings were held at the school, and approximately two thirds of the parents attended. Class parties were held three times a year, and parents usually participated by sending food with their children. There were two field trips annually, and parents usually did not participate unless additional supervisors were needed.

Instructional Strategies for Grade 2, School B

The bilingual classroom observed had a total enrollment of thirty students, all of Mexican descent. The main classroom staff were the following: one teacher; one aide, who was assigned full time to this class; and one migrant resource teacher, who worked full time at this school. Additional staff included one music teacher, two remedial Reading teachers, and one learning disabilities specialist.

Scheduling was flexible to allow maximum use of staff personnel. On a daily basis, each student came into contact with the teacher, the aide, and the migrant resource teacher. Some students worked also with the remedial Reading teachers and the learning disabilities specialist on a daily basis. The entire class spent one period weekly with the music teacher.

Each period was forty-five minutes. The entire class had Mathematics, English Language Arts, Spanish Language Arts and Culture, English Reading, Spanish Reading, Physical Education, and Social Studies. Science was taught twice a week and Music once a week during the Social Studies period. Those students referred to remedial Reading and the learning disabilities specialist went during the English and Spanish Reading periods.

English Language Instruction for Native-English Speakers

There were no native-English speakers in the class.

English Language Instruction for Native-Spanish Speakers

Written and oral aspects of English language were combined and taught separately from English Reading. Capitalization, punctuation, spelling, grammar, and creative writing were included in written English. Oral work consisted of sharing, choral reading, storytelling, reciting poetry, and participation in skits and plays. The class was divided into two main groups to work with the teacher and the aide. Frequently, some students worked independently at their desks. Students were grouped for English Language Arts at the beginning of the school year according to their ability and the teacher's judgment based on the student's previous year's achievement and performance on review material during the first few weeks of school.

The class was divided into three groups for English Reading. Each group spent time working with the teacher and the aide and doing independent work by rotating to each activity center. Reading and phonics were taught by the aide. Independent work included silent reading, art, reading comprehension, and sharing. At all times there was one group with the teacher, one group with the aide, and one group working independently.

During the English Language Arts and Reading periods, some students went to the remedial Reading and learning disabilities teachers. Scheduling was coordinated so that the students going to the specialists did not miss regular class instruction other than specific activities such as Reading and phonics which were taught by the specialists.

The main textbooks used for English Language Arts and Reading were the Harcourt Brace Jovanovich series. The following textbooks were used for reading: Primer, A Happy Morning, A Happy Afternoon, and Sun and Shadow. Listening, Reading, Talking, and Writing: Experiments in Language was used for English Language Arts. Commercial and teacher-produced exercise sheets, charts, and games were used as additional instructional materials. Also, the students used audiovisual equipment including cassettes, records, filmstrips, television, and movies.

Spanish Language Instruction for Native-Spanish Speakers

As in the English language instruction component, written and oral aspects of Spanish language were combined and taught separately from Spanish Reading, and instructional strategies and methodology included grouping according to subject areas. The major difference between the two components was the role of the teacher aide and the migrant resource teacher.

The teacher aide had a more active role in Spanish language instruction than she did in English language instruction and provided Spanish Reading instruction for each group. The migrant resource teacher provided Spanish remedial Reading and was specifically responsible for the cultural component.

Students were referred to the migrant resource teacher during the Spanish language instruction periods. Teachers coordinated scheduling so that students in Spanish remedial Reading did not miss too much regular instruction in the classroom. Mexican culture was integrated with Spanish language instruction. A locally produced book, Bi-cultural Workbook, was used by the teacher and aide as part of the regular classroom instruction. It included lessons relating to famous people, holidays, customs, songs, games, etc. Once a week, the migrant resource teacher made a class presentation dealing with a specific cultural aspect.

Textbooks used in Spanish language instruction were the Victoria and the Senda series. Instructional materials such as games, charts, and flash cards were used extensively. Students also used audiovisual equipment that included records, cassettes, filmstrips, and movies.

Spanish Language Instruction for Native-English Speakers

There were no native-English speakers in the class observed.

Mathematics Instruction

Mathematics was generally taught in English; however, Spanish was also used. The students were allowed to use whichever language they preferred. They spent forty-five minutes each day working with Mathematics. There was no permanent grouping. Grouping occurred only as needed, and tutoring was provided for individual students. Both the teacher and the aide instructed the students.

Mathematics instructional materials included commercially produced exercise sheets, charts, games, and flash cards. The textbook used was *Exploring Elementary Mathematics*.

Cultural Component

The cultural component is incorporated with Spanish Language Arts. See the Spanish Language Instruction for Native-Spanish Speakers section.

Parent and Community Involvement

Direct parental involvement in the school is mostly through parent conferences. The school maintains a policy of open and direct communication with parents regarding actions needed to be taken by the principals and teachers in significant school affairs. Parents are also encouraged to attend and participate in school board meetings and bilingual education advisory council activities. The community recognizes that involvement at this level is most effective in the decision-making process. Such involvement has resulted in the implementation of projects such as the bilingual education one.

Other parent involvement includes assisting teachers in school functions such as parties and field trips.

Instructional Strategies for Grade 2, School C

The class observed had twenty-seven students of Mexican descent. Besides the classroom teacher there was a teacher-aide who assisted in the instructional program. Both were bilingual and Hispanic. A main feature of the instructional program at the school was the ability-grouping for English Reading that took place during the first hour and a half of the morning period. Therefore, there were four Reading teachers, each with an instructional aide, who were responsible for these students' instruction. The support personnel for the class included a Spanish resource teacher, two remedial Reading teachers, and a learning disabilities teacher, who worked with one student. The school/community liaison was available for support services.

English Language Instruction for Native-Spanish and Native-English Speakers

At this school, there was ability grouping for English Reading instruction during the morning period. Consequently there were twenty-seven students in the classroom who were assigned to four classroom teachers and four instructional aides.

The teacher selected for observation kept sixteen of her students (all bilingual) during Reading instruction. In addition, she received ten students from three other classrooms. During this period, there were essentially two groups, both of which were designated high ability, although they were performing at grade level. One group of ten students were reading at 2.1 level. The other group of sixteen students were at 1.2 reading level. Approximately 2 1/2 hours were assigned each week for both groups in direct Reading instruction which included choral reading, oral/silent reading, phonics, reading comprehension, and library assignments. An equal amount of time was designated for independent work activity. Typically, the teacher presented the lesson of the day, while the instructional aide provided follow-up instruction during the independent period. The groups did not change once they were established. The textbooks used for Reading were Together We Go (Harcourt Brace Jovanovich) and A World of Surprises (Harcourt Brace Jovanovich).

Other instructional aids for this class included workbook sheets, charts, educational games, flash cards, records, filmstrips, and library books.

In addition to a Reading placement test that was administered at the beginning of the year to group students, other means of evaluation included (1) the Stanford Achievement Test administered twice a year; (2) a monthly Reading test to measure student progress and to review curriculum objectives and instructional strategies; and (3) a yearly Reading test which met similar objectives.

Seven students from the classroom went to a second teacher for Reading instruction. Five students were Spanish-dominant and two students were considered balanced bilingual. All were high ability readers. Typically, this teacher instructed the entire class and gave individualized attention after the introductory lesson. The aide assisted the teacher in giving individualized attention. These students were reading at grade level. The content areas covered were choral reading, phonics, reading comprehension, library assignments, and oral/silent reading. Approximately four hours were devoted to direct instruction each week with fifty minutes spent in independent work activity. The textbooks for this class included A World of Surprises and Going Places, Seeing People (Harcourt Brace Jovanovich). Exercise sheets, charts, and many library books were utilized in the instruction. Evaluation of the student's work was periodic. There was daily feedback given on written assignments completed during the independent Reading period.

Three students (one Spanish-dominant, two balanced bilingual) were taught in a classroom which was mainly composed of low readers. All three students were performing at the readiness level. Essentially the instructional content consisted of spelling, sentence dictation, phonics, reading comprehension,and oral/silent reading. The major portion of five hours each week was devoted to direct instruction in these areas.

Evaluation of the student's work was mainly accomplished through the vocabulary and sentence dictation work which occurred on a daily basis or twice a week depending on the instructor. Both instructors use these results for reteaching certain skills. Also, a Reading test was given once a year to measure the student's level of achievement and to assign the student to a Reading class for the following year.

The textbook and other materials listed for this class were Sun-up-Primer (Harcourt Brace Jovanovich), Reading Skills One and Duplicating Masters (Harcourt Brace Jovanovich), educational games, cassette tapes, library books, and filmstrips.

Finally, one bilingual student from the class joined a fourth teacher for Reading instruction. This teacher had two groups with thirteen bilingual students in each. Although the groups had been labeled average and above average on reading ability, they were not considered that dissimilar. The difference was measured by the number of units in the Reading textbook that each group had completed. Both groups were reading A World of Surprises (Harcourt Brace Jovanovich), and More Power from the Open Highway series (SRA). The Reading content included work on phonics, reading comprehension, and oral/silent reading. They spent 2 1/2 hours each week in direct instruction with an equal time allottment given to independent work activity. Both teacher and teacher aide shared teaching responsibilities for the two groups.

Evaluation of each group's progress twice a month varied since it was determined by the completion of a unit. The results were used for grade reports and for review of material. A Reading achivement test was given twice a year to assess student skills.

Other instructional materials included exercise sheets, charts, educational games, flash cards, filmstrips, and many library books.

Besides the Reading instruction that has been described, the students received instruction from their regular classroom teacher in other areas of English Language Arts which included capitalization, punctuation, spelling, grammar, and creative writing. Instruction was for thirty minutes each day with a comparable time period assigned to independent activity. The oral language component of storytelling, sharing, and skits was held for one hour each week. Poetry was also taught occasionally. The instructional textbooks were Basic Goals in Spelling (McGraw-Hill Book Co.) and Listening, Reading, Talking, and Writing (Laidlaw Bros.).

Spanish Language Instruction for Native-English and Native-Spanish Speakers

At the beginning of the school year, a diagnostic test was administered for the purpose of grouping students. Two groups were formed with the following characteristics: Group 1--twelve students (one Spanish-dominant, eleven balanced bilingual) and Group 2--twelve students (two Spanish-dominant, ten balanced bilingual). Group 1 was performing at grade level, reading Senda Lengua Nacional Nivel 2 (Educacion Santillana), and Group 2 was below grade level, reading Libro Primero de Lectura: El Nuevo Sembrador (La Escuela Nueva Ediciones Escolares). Both groups were exposed to similar content: capitalization, punctuation, spelling, and grammar. Approximately forty-five minutes weekly were assigned for the instruction of skills, and the follow-up work was completed during 1 1/4 hours each week. Typically the teacher was responsible for the initial presentation of the lesson with the aide assisting with the independent work activity. The Reading component consisted of oral/silent reading, phonics, reading comprehension, and library assignments. Each group spent forty minutes each week in direct instruction. A few students did not receive Spanish Language Arts instruction. A special ESL class was given to students who needed it and the remedial Reading specialist pulled students out for additional instruction in English Language Arts.

Weekly tests were administered to monitor the student's progress. These results were used for diagnosis and for revision of curriculum and/or instructional strategies. No grade reports were given for Spanish Language Arts. Besides the instructional tests mentioned previously, the teacher supplemented her program with the following: workbooks, exercise sheets, charts, educational games, flash cards, records, and library books.

Mathematics Instruction

The entire class was given instruction for this subject. The instructional aide was only in the classroom for a short period of time. The instructional content included addition, subtraction, multiplication, and measurement. New math was the instructional approach with 1 2/3 hours weekly for group instruction and an equal amount of time assigned for independent work activity. Although both languages were used, instruction tended to be primarily in English. Three students received Mathematics instruction from another teacher.

A monthly test was administered for the purpose of assessment and to review curriculum and/or teaching strategies. Besides the textbook, Exploring Elementary Mathematics (Holt, Rinehart and Winston, Inc.), other materials which reinforced instruction were workbooks, exercise sheets, charts, educational games, and flash cards.

Cultural Component

Bicultural lessons on special holidays which occur perhaps once a month are presented during a two-day period (forty minutes) in both languages. Events which take place in the U.S. are compared and contrasted with those taking place in Mexico. Activities may focus on Art, fables, Music and famous personalities. Other than these specially prepared units, the curriculum follows the regular Social Studies format.

Parent and Community Involvement

There was a minimum of parent participation in this classroom. The teacher had held six parent/teacher conferences. Only one parent had attended a class party. Four parents attended monthly meetings of the PTA. Only one event--a Thanksgiving Program--had attracted twenty parents to the school.

Instructional Strategies for Grade 3, School D

The total enrollment of the two third-grade classes observed was fifty-four students. Thirty-nine students are balanced bilingual and fifteen are English dominant. There were forty-five Mexican-Americans and seven white non-Hispanics. These two classes were team taught in all content subject areas. The two teachers and two classroom aides were bilingual and of Hispainc descent.

- To supplement Spanish as a Second Language instruction, the teachers have developed individual and group language-learning games for the students.
- In all content areas there is a system of peer-tutoring with one or two students acting as team leaders.

English Language Instruction for Native-English Speakers

Students were grouped according to Reading ability for language instruction and were divided between the team-teachers in separate classrooms. The same curriculum and materials were used by both teachers. Approximately four hours were spent weekly on developing oral and written skills. Areas of concentration were capitalization, punctuation, spelling, grammar, creative writing, and non-fiction. Poetry, storytelling, choral reading, and sharing were also part of the curriculum. The major textbook used was Adventures in English: Experiences in Language (Laidlaw Brothers Publishers).

Approximately 7 1/2 hours were spent weekly on Reading. Major emphasis was placed upon the development of comprehension skills, vocabulary expansion, and phonics. Students spent 2 1/2 hours weekly on individualized oral reading practice and were broken down into smaller groups based on ability in each of the classrooms. The major textbooks used were Widening Circles, World of Surprises, and Ring Around the World (Harcourt Brace Jovanovich) with workbooks at appropriate levels which reinforce the Language Arts concepts taught in the daily lessons. Open Highways (Scott Foresman) was used as an alternate series in the Reading program.

English Language Instruction for Native-Spanish Speakers

There was no English as a Second Language instructional component at this school.

Spanish Language Instruction for Native-Spanish Speakers

The thirty-nine bilingual students received instruction in Spanish Language Arts and eading for forty-five to sixty minutes daily. They were grouped according to reading ability. Approximately one hour weekly was spent on grammar, spelling, and vocabulary. To supplement such instruction, teachers have developed games and experience charts. There was no major textbook used for Language Arts instruction.

Approximately two hours were spent weekly on Reading instruction. Emphasis was placed upon phonics, comprehension, and listening skills. Fifteen minutes daily were spent on oral reading practice. The major textbooks used were Senda Levels 2 and 3, with workbooks at approximate levels, and Trabaja y Aprenda-Nivel 1, (Serie Santillana).

Spanish Language Instruction for Native-English Speakers

Approximately three hours were spent weekly on Spanish as a Second Language instruction for fifteen English-dominant students. Emphasis was placed upon developing oral communication skills. These students worked with the classroom aide while the other students were recieving Spanish language instruction. The major textbook used was Sonidos, Letras y Palabras: Libro de Ejercicios/ Nivel 4 (Curriculum Division/Region I). Areas of concentration were vocabulary expansion, phonics, pronunciation, basic grammar, and sentence structure.

Mathematics Instruction

Approximately forty-five minutes were spent daily on Mathematics instruction. Topics covered were addition, subtraction, multiplication, division, fractions, measurement, time/weight, geometry, and new math. Approximately twenty minutes daily were spent on independent work supervised by the teacher and the aide. There was no formal tracking for Mathematics instruction; however, based on need, students worked in pairs or small groups as often as necessary. The major textbook used was Exploring Elementary Mathematics (Holt, Rinehart and Winston). To supplement Mathematics instruction, games and manipulative objects were available for use in the classroom.

Cultural Component

There was no specific cultural component at this grade level. Mexican-American heritage was reinforced during Spanish language and Reading instruction. Holidays and famous people were discussed when appropriate. Geography, History, and Art were integrated into the Reading program.

Parent and Community Involvement

Parent/teacher meetings were held twice a semester and approximately one third of the parents attended. Teachers conferred with the parents on a frequent basis and made home visitations as often as necessary. Class parties were held once a semester, but parents did not usually attend. During the report card periods and after pre- and post-standardized-test results had been recorded, teachers and parents conferred in an informal setting to discuss the student's academic abilities in Spanish and English.

Instructional Strategies for Grade 3, School E

- The total enrollment of the class was twenty-seven students: twenty-four Mexican-American students and three white non-Hispanic students.
- Students received instruction from the homeroom bilingual teacher in all content areas except Mathematics which was taught by an English monolingual teacher.
- There were two remedial Reading teachers available to this class for one hour of extra instruction daily. (One teacher was of Hispanic descent and bilingual while the other was an

English monolingual and of white non-Hispanic descent.) Approximately 55% of the class received remedial Reading in English.

- The instructional aide spent the bulk of his time instructing the entire class and tutoring individual students as needed.

English Language Instruction for Native-English and Native-Spanish Speakers

This classroom was divided into four groups, based on ability, for Reading instruction. Approximately five hours were spent weekly on oral reading, comprehension, and independent work. The major textbooks used were Widening Circles, (Harcourt Brace Jovanovich) and Speeding Away and More Power Moving Away (Scott Foresman Co.). The groups ranged in ability from second- to fourth-grade Reading levels. These students also received one hour of extra instruction in Reading from the remedial Reading teacher.

The two highest Reading groups were grouped together for Language Arts instruction and spelling. The lower groups were combined for instruction in spelling. Only the English-dominant students received instruction in creative writing. English mechanics and grammar were taught to the entire class for approximately twenty-five minutes daily while twenty minutes were spent on individualized instruction based upon need, and/or seat work. Approximately three hours were spent weekly on oral language skills using dramatic arts and poetry. The major textbook used for Language Arts was Adventures in English (Laidlaw).

Spanish Language Instruction for Native-Spanish Speakers

For Spanish Language Arts students were divided into two groups based on ability. Approximately forty-five minutes were spent daily on grammar, spelling, creative writing, and language mechanics. The teacher taught the higher ability group while the aide taught the other. Approximately 1 1/2 hours were spent weekly on individualized instruction, based upon need, and/or seat work. The major textbooks used were Ficha de Trabajo and Senda.

Spanish Language Instruction for Native-English Speakers

The two English monolingual students received SSL instruction with nine students from another classroom for approximately forty-five minutes daily. No major textbook was used. Instruction was given by the bilingual classroom aide. Emphasis was placed on phonics, vocabulary, pronunciation, basic grammatical structures, and listening comprehension skills. To supplement oral instruction, teacher-developed materials such as games and flash cards were used. There was one English monolingual student in this class who did not receive second-language instruction.

Mathematics Instruction

Students were grouped according to need rather than ability, and grouping patterns changed frequently. Emphasis was placed upon addition, subtraction, multiplication, division, and new math. The major textbook used was Exploring Elementary Mathematics. Approximately 2 3/4 hours weekly were spent on Mathematics instruction, two hours of which were devoted to individualized instruction and/or seat work. (Students received such instruction from the third-grade English monolingual teacher.)

Cultural Component

The cultural component was not taught as a separate component but was incorporated into both the Spanish Language Arts and the Social Studies curricula. Approximately 1 1/2 hours weekly were spent discussing topics dealing with Art, History, Music, holidays, and famous people. In addition to this, students received Mexican folk dancing lessons from the Physical Education teacher for approximately 2 1/2 hours weekly.

Parent and Community Involvement

An average of two parents a semester participated in the organization and supervision of class parties. As often as was necessary, the teacher and classroom aide conferred with parents either in their homes or at the school to discuss academic progress and/or problems. Approximately nine parents participated in the parent advisory council meetings dealing with the bilingual project at this school. Open house was held yearly, and approximately 50% of the parents attended this function.

Instructional Strategies for Grade 4, School F

Major Features

The teacher presented History through the medium of Art as an expression of Mexican heritage. At the time of this observation, the Aztec Indians were being studied and discussed. The teacher and students painted a mural to depict the lifestyle of the Aztecs. The mural served as an instructional aid.

The total enrollment of this fourth-grade class was thirty students. The ethnic composition of the entire class was Mexican-American. The teacher and classroom aide were bilingual and of Hispanic descent.

English Language Instruction for Native-English Speakers

Approximately three hours were spent weekly on English language instruction. The class was not grouped according to ability or language dominance. Areas of concentration were capitalization, punctuation, spelling, grammar, creative writing, and nonfiction. Approximately two hours were spent on developing oral language expression. Poetry, skits, storytelling, choral reading, and sharing are used as the medium of instruction. Emphasis on English language usage was stressed in all content areas. The students spent forty-five minutes daily on independent work with the teacher and classroom aide assisting on an individaul basis.

Approximately 3 3/4 hours weekly were spent on Reading instruction. Students were grouped according to ability on three levels. The classroom aide worked with the highest group and the teacher, with the average and lower groups. (At the time of this observation there was a student-teacher who worked with two to four students, depending upon need, assisting them with individual Reading problems.) Two additional forty-five minute periods were spent weekly on supplementary/enrichment Reading and individualized instruction. Time was spent on developing oral and written comprehension skills, with a continual emphasis on phonics. The major textbooks used were from the Seeking Adventures series.

English Language Instruction for Native-Spanish Speakers

One student received intensive English as a Second Language instruction for ninety minutes weekly. No major textbooks were used--materials are teacher prepared and locally developed. Emphasis was placed on phonology, structure, vocabulary expansion, and listening comprehension. The teacher created meaningful situations through which language items were introduced. The classroom aide or student teacher spent an additional thirty minutes daily with the student introducing English Language Arts and Mathematics concepts using a second-language learning approach.

Spanish Language Instruction for Native-Spanish Speakers

Spanish Language Arts was taught by the classroom aide for forty-five minutes three times weekly to seventeen bilingual students. Major emphasis was placed on grammar, vocabulary expansion, and reading comprehension. The major textbook used was from the Senda series, Levels 2 and 3. The Senda workbook reinforced the grammatical structures in the textbook and was used on a daily basis. The students were given both oral and written quizzes on a weekly basis. Approximately one hour a week was spent on oral reading.

Spanish Language Instruction for Native-English Speakers

The thirteen students who received Spanish as a Second Language instruction had a command of spoken Spanish, since in most cases, even though they were English dominant, Spanish was the home language. The curriculum was designed so that these students could gain equal competency in Spanish. Emphasis was placed on written language development, reading comprehension, and listening skills. The major textbook used was Lengua Española. The classroom teacher instructed these students at the same time the aide was working with the seventeen students who received Spanish Language Arts instruction in another room. The Reading materials used were from the supplementary library available in the classroom.

Mathematics Instruction

Students were grouped according to ability for Mathematics instruction. Approximately fifteen minutes a day were spent on concepts and thirty minutes on application. Topics covered were addition, subtraction, multiplication, division, fractions, and geometry. The major textbook used was Exploring Elementary Mathematics, Level 4 (Holt, Rinehart and Winston, Inc.). Teacher-developed games supplemented instruction. Mathematics was taught bilingually, usually using Spanish to reinforce the English. Students received supplementary Mathematics instruction twice weekly for forty-five minutes. At this time instruction was individualized and programmed according to student needs.

Parent and Community Involvement

All parents of students confer once a semester with the teacher and classroom aide in a fromal setting. The teacher is also required to make two home visitations a year. Approximately one third of the parents attend project- and district-sponsored functions, such as open houses and classroom parties. PTA meetings are held monthly, and a limited number of project parents attend. Parents, however, do confer with the principal whenever necessary and are kept well informed about the project. Informal meetings of the parents and students with the teacher and teacher aide are held whenever requested.

Instructional Strategies for Grade 5, School F

The total enrollment of this fifth-grade class was twenty-eight students: twenty-five Mexican-American students and three white non-Hispanic students. The teacher and classroom aide were bilingual and of Hispanic descent.

English Language Instruction for Native-English Speakers

The class was not grouped for English language instruction. Approximately 3 3/4 hours weekly were spent on capitalization, punctuation, spelling, grammar, creative writing, nonfiction, and penmanship. The major textbook used was Discovering English-Experiences in Language, Level 5 (Laidlaw). To supplement such instruction, teacher-developed materials, audiovisuals, and multimedia materials were employed. To develop oral language skills, poetry, storytelling, choral reading, and sharing were included as part of the curriculum.

The class was grouped in Reading according to ability. Approximately forty-five minutes daily were spent on phonics and reading comprehension. At this time fourteen students from this classroom were sent to the remedial Reading teacher for instruction. The major instructional material used was the SRA kit. The fourteen students who remained with the classroom teacher were divided into high and low groups. The major textbooks and workbooks used were from the Houghton Mufflin series, and materials by Scott Foresman and Company were used as supplementary materials.

English Language Instruction for Native-Spanish Speakers

Students received instruction in Spanish Language Arts from two different teachers in the bilingual component. Students were divided between the two teachers according to language dominance, although all students receiving such instruction were bilingual. Approximately 1 1/2 hours a week were spent on capitalization, punctuation, spelling, grammar, creative writing, and nonfiction using Lengua Española as the basic textbook. Emphasis was placed upon oral language skills using storytelling, choral reading, and sharing for instruction. Approximately forty-five to sixty minutes weekly were spent on Reading using the Senda series as the basic textbook. Most of the time was spent on developing communication skills in Spanish. Supplementary readers such as Nuevas Rosas de la Infancia and books from the Laidlaw Series were available in the classroom. For oral language drilling, Mis Primeros Pasos (Benson & Co.) was used.

Spanish Language Instruction for Native-English Speakers

There was no Spanish as a Second Language component for this class. The three white non-Hispanic students received supplementary instruction in Social Studies, which usually involved individual projects directed by the homeroom teacher.

Mathematics Instruction

Approximately three hours were spent weekly on Mathematics instruction. The major textbook used was Exploring Elementary Mathematics, Level 5 (Holt, Rinehart and Winston). English was used as the language of instruction, and Spanish was used to reinforce and clarify certain concepts. Time was spent on developing the basic principles of addition, subtraction, multiplication, and division. Students were grouped according to ability. Manipulative objects and audiovisuals were used to supplement instruction. Approximately fifteen minutes daily were spent on individualized seat work in mathematical application. At this time the classroom teacher and aide worked with students based upon needs.

Cultural Component

Approximately ninety minutes were spent weekly discussing topics appropriate to Mexican-American cultural heritage. The language of instruction was Spanish. For the fifth grade, this component was taught by the teachers of the Spanish language instructional component. No major textbooks were used; however, cultural units, produced by the district bilingual office were provided for use in the classroom. Culturally appropriate Reading materials were also available in the classrooms. Topics on Mexican History, Geography, folklore, holidays, and famous people were studied and discussed. To supplement such instruction games, multimedia materials, and music appropriate to Mexican and Hispanic culture in general were part of the curriculum.

Since the cultural component is an integral part of the Spanish language instructional program at this school, the content of the curriculum reinforces oral and written language development in Spanish. Students do individual and/or group projects, book reports, and oral presentations.

Parent and Community Involvement

All parents of students confer once a semester with the teacher and classroom aide in a formal setting. The teacher is also required to make two home visitations a year. Approximately one third of the parents attend project- and district-sponsored functions, such as open houses and classroom parties. Parent/teacher association meetings are held monthly, and a limited number of project parents attend. Parents, however, do confer with the principal whenever necessary and are kept well informed about the Title VII project. Informal meetings of the parents and students with teachers and teacher aides are held whenever requested.

Instructional Strategies for Grade 5, School G

The total enrollment of this fiftn-grade class was thirty students: twenty-nine Mexican-American students and one white non-Hispanic student. The homeroom teacher was not of Hispanic descent and did not speak Spanish. There was no classroom aide. These students remained with the homeroom teacher for approximately sixty-five minutes daily, of which fifteen minutes were spent on attendance/opening exercises and forty-five minutes on Science instruction. One forty-five minute period a week at the school library was also spent with the homeroom teacher.

- Spanish Language Arts/Reading and heritage were a non-graded component of the fifth-grade program at this school. Students received pass-fail status based on participation in the bilingual project.
- In one of the three bilingual components for the fifth grade, the class was supervised by the classroom teacher, and new class leaders were appointed weekly to conduct the class. There was much student participation and peer-tutoring in this particular classroom. Students also presented book reports and topic reports based on supplementary reading done outside of class.

English Language Instruction for Native-Spanish and Native-English Speakers

Students received English language instruction from a different teacher, at the same grade level for forty-five minutes daily. All of the students had equal competency in Spanish and English except for the one white non-Hispanic student who was English dominant.

There was no specific grouping for English language instruction. The teacher individualized instruction with four of the students who were at a slower pace than were the rest of the class. Areas of concentration were capitalization, punctuation, spelling, grammar, plays, poetry, skits, storytelling, choral reading, and sharing. Approximately three hours weekly were spent on developing written skills and forty-five minutes weekly on oral skills. The teacher assigned approximately thirty minutes of homework daily. The major textbooks used were Discovery in English/Experiences in Language and Language of Today (Laidlaw).

Students received Reading instruction in English from a different teacher at the same grade level. There was a classroom aide available to the students and teacher twenty hours weekly. Students were grouped according to ability and received instruction in Reading for forty-five minutes daily. The thirteen students who were in the higher level group used Images, Level 5 (Houghton Mifflin) as their major textbook with the workbook at the appropriate level. The remaining seventeen students, who were grouped together in the lower Reading group, used Discovering Treasure (Scott Foresman) as their major textbook with the workbook at the appropriate level. Students were regrouped as often as necessary based on individual abilities and need. The teacher who taught Reading was a specialist in this field.

English Language Instruction for Native-Spanish Speakers

There was no English as a Second Language instructional component at this grade level as all native-Spanish speakers were bilingual.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

Students received Spanish language instruction from the three teachers who were involved in the bilingual project at this grade level.

Approximately three hours were spent weekly on Spanish Language Arts and Reading for the twelve students who were involved in the bilingual project. The remaining eighteen students received instruction in Social Studies at this time with the Mathematics teacher. Students were grouped according to ability on the basis of pretest and posttest scores on locally developed Spanish language instruments in reading comprehension and vocabulary and on teacher assessment and observation.

Areas of concentration were grammar, punctuation, spelling, reading comprehension, pronunciation, oral language development, poetry, and prose. Approximately fifteen minutes daily were spent on Language Arts concepts and thirty to forty minutes daily on oral reading and comprehension exercises. All three teachers followed the same curriculum for instruction and used Lengua Espanola, Nuevas Poses de la Infancia - 4°, and the Senda series and workbooks at appropriate levels as the major textbooks. The Spanish language component was taken pass-fail.

Spanish Language Instruction for Native-English Speakers

There was no Spanish as a Second Language instructional component at this school.

Mathematics Instruction

There was no specialized grouping for Mathematics instruction; the teacher individualized instruction on the basis of need. Students received Mathematics from a different teacher at this grade level for forty-five minutes daily using Exploring Elementary Mathematics as their major textbook. Areas of concentration were addition, subtraction, multiplication, division, fractions, percentages, measurement, geometry, and new math. To supplement instruction, mathematical games, oral drills, manipulative objects, and visual aids were used. Approximately twenty minutes a day were spent on concepts and twenty-five minutes on application.

Cultural Component

Spanish Language Arts and Reading were an integral part of the cultural component offered at this school. The twelve students who received such instruction concentrated on Mexican art, fables/legends, Geography, History, holidays when appropriate, Music, and famous people for forty-five minutes weekly. There were no major textbooks used. The cultural component was taught by the same teachers who taught Spanish language and Reading. Materials used were teacher-prepared and/or locally developed.

Parent and Community Involvement

Parent/teacher conferences were held once a semester, and approximately twenty parents attended. This conference was held in a formal setting with the homeroom teacher who was not involved in the bilingual project. When problems or concerns arose, the individual teachers involved in the bilingual project contacted the parents, and a meeting was set up either at school or in the home. Parents also came to the classes to observe their children. The principal and the bilingual counselor met with parents, teachers, and students whenever the need arose. The community, being school oriented, was involved in the bilingual project. The counselor held meetings with the parents at least once a month to discuss bilingual educational philosophy, student motivation, biculturalism, and teacher/student interaction.

Instructional Strategies for Grade 5, School H

Major Features

The fifth grade observed at this school has a total enrollment of thirty students, twenty-five of Mexican ethnic background and five white non-Hispanic. The class was observed during the Mathematics. English Language Arts, English Reading, and bilingual component periods. The bilingual component was divided into two groups, Spanish Language Arts for Spanish-dominant students and Spanish as a Second Language for English-dominant students. Students attended these classes five days a week. Mathematics, English Reading, and Spanish as a Second Language were taught by the same teacher. English Language Arts and Spanish Language

Arts were taught by another teacher. All teachers in these classrooms were Hispanic and bilingual. There was one Hispanic bilingual aide in English Reading.

English Language Instruction for Native-English and Native-Spanish Speakers

Written and oral aspects of English language were combined and taught separately from English Reading. Capitalization, punctuation, spelling, grammar, and creative writing were included in written English. Oral work consisted of sharing, storytelling, poetry, and participation in skits and plays. Instruction was directed to the entire class with independent desk work frequently assigned. During the first few weeks of school, students were grouped according to their ability on the basis of their achievement the previous year and performance on review material. Language ability determines placement in the high, average, or low group. The main textbooks used were Progress in English Experiences in Language and Basic Goals In Spelling.

English Reading included phonics, reading comprehension, and use of the library. There were two groups--one low group which worked with the aide and one average/high group which worked with the teacher. The students were grouped by ability and language ability on the basis of their achievement the previous year and performance on review work at the start of the year.

Group A (low) used the textbook Discovering Treasure. The students worked closely with the aide who also helped with independent work in Reading comprehension. Group B (average/high) used the textbook Images. This group was frequently subdivided, allowing the teacher to work with a smaller group for oral reading while the rest did independent work in reading comprehension. The teacher occasionally worked with both groups to evaluate student progress through student observation to revise the curriculum or method of instruction if necessary.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

The bilingual component included Spanish Language Arts (SLA), Spanish Reading, Spanish as a Second Language (SSL), and cultural heritage. The class was divided into two groups. The Spanish-dominant students received Spanish Language Arts and Reading instruction with one teacher. English-dominant students received Spanish as a Second Language instruction with another teacher in a separate classroom. Hispanic culture was integrated with Spanish Language Arts and Reading while the Spanish as a Second Language group received instruction in cultural heritage once a week during their regular SSL period. Topics covered at that time included art, food, legends, games, holidays, music, and famous people.

Both groups used the Senda series and the Lengua Española series. The major difference in the two groups was that the SSL group stressed oral Spanish while the SLA group covered all areas of Spanish Language Arts and Reading and used the total-immersion method. Both teachers used the same strategy in classroom management to allow them to work with smaller groups. Usually there were two or three tasks such as working with a puzzle or playing a game with peers; individual independent desk assignments; and oral reading and/or instruction with the teacher. By rotating students in these activities, the teacher was available to work with small groups.

Mathematics Instruction

The class received Mathematics instruction for forty-five minutes daily. Instruction was in English with Spanish used when necessary for better comprehension.

The teacher used the first ten to fifteen minutes of class time to present a new lesson or to review a previous lesson. Afterward, students did independent work while the teacher worked with a small group or provided personalized individual instruction. Addition, subtraction, multiplication, division, fractions, and geometry were studied at this grade level. Besides the textbook, Exploring Elementary Mathematics, students worked with teacher-produced worksheets. Quizzes were given upon completion of a unit for diagnostic purposes. These quizzes were usually teacher developed. District pretests and posttests in Mathematics and English language achievement were administered.

Parent and Community Involvement

Direct parental involvement in the school is mostly through parent conferences. The schools maintain a policy of open and direct communication with parents regarding actions needing to be taken by the principals and teachers in significant school affairs. Parents are also encouraged to attend and to participate in meetings of the school board and the Bilingual Education Advisory Council.

Other parent involvement included assisting teachers in school functions such as parties and field trips.

Instructional Strategies for Grade 5, School I

This class had an ethnic composition of twenty-six students of Mexican descent and six students who were white non-Hispanic. The classroom teacher was responsible for the major instructional components other than Spanish Language Arts. She did receive some assistance from an instructional aide during the Reading period and from a remedial Reading teacher who pulled out a group of students for additional Reading instruction. Since the classroom teacher was English monolingual, the Spanish Language Arts component was taught by a fellow teacher who was bilingual and Hispanic. This teacher did have the assistance of the instructional aide for the entire forty-five-minute period.

Other teachers included a librarian, who taught the class once a week; a counselor who also worked with the class once a week; a Music teacher who gave instruction three days; a Mathematics resource teacher who pulled another group out for additional instruction; and a Physical Education teacher.

English Language Instruction for Native-English and Native-Spanish Speakers

Three groups had been established on the basis of the results of a placement test administered at the beginning of the school year. Group 1, labeled the low group since these students were performing at second-grade level, was composed of nine students (one English dominant and eight bilingual).

Ten students (one English dominant and nine bilingual) formed the average group (Group 2) and were performing at grade level. Group 3 had thirteen students (five English dominant and eight bilingual) who were at grade level and above. Reading instruction (silent/oral reading, phonics, reading comprehension, punctuation, and library assignments) was given to Group 1 for 2 1/4 hours weekly; Group 2 for 1 1/2 hours; and Group 3 for 3 3/4 hours. Remedial Reading teachers also worked with students in Groups 1 and 2. Groups remained intact during the school year although a few students were changed on the basis of individual need and ability. Reading instruction, other content skills in English Language Arts were taught by the classroom teacher. However, the entire class participated in skill development of capitalization, spelling, creative writing, and penmanship. This instruction occurred during a fifty-minute period each week. In addition, an oral language component consisting of role-playing and sharing was allotted 1 2/3 hours each week. An independent work period (three hours each week) was assigned to all content areas in English Language Arts.

The various means of formal student evaluation were the following: (1) The Stanford Achievement Test administered twice a year; (2) a weekly Reading test administered for the purpose of assessing student achievement and for reviewing curricular objectives and/or teaching strategies; (3) weekly and monthly spelling tests; and (4) weekly grammar tests. Reading and Language Arts textbooks included Images (Houghton, Mifflin Co.) and Discovering English (Laidlaw).

Spanish Language Instruction for Native-English and Native-Spanish Speakers

This component was taught to three groups by a bilingual teacher. Group 1, with eleven balanced bilingual students, was using Senda 4; Group 2,with fourteen balanced bilingual students, was working in La Cuidad, a supplementary book prior to Senda 4; and Group 3, which had seven English-dominant students, was given instruction in Spanish as a Second Language. The teacher and aide shared responsibility for the instruction of all three groups. All three groups remained fairly stable throughout the school year. Every month these groups followed an established schedule of activities. For example, during the first week Group 1 worked on

Senda 4 which tapped silent/oral reading, phonics, and reading comprehension skills; and Group 2 covered similar skills in La Cuidad, Level 2. In the second week of the month, Group 1 worked on silent reading, comprehension, and grammatical exercises in the Senda 4 Ficha or workbook. Group 2 completed work in Practicas de Ortografia 4 on punctuation, capitalization, and spelling. During the third week of each month, Group 1 and Group 2 concentrated on grammar using Lengua Espanola 4. The fourth week, the entire class participated in a cultural lesson which will be described in detail in the Cultural Component section. Approximately 3 3/4 hours were allotted each week for Spanish Language Arts. Specifically, 2 1/2 hours were assigned to direct instruction with the remaining 1 1/4 hours in independent work activity.

Group 3, or the SSL group, rotated a number of activities during the week. REPASO (project-developed materials) was used for oral Language Arts and De Camino (W. S. Benson) for grammatical and spelling exercises as well as oral language (and Reading) activities. Primarily, this group spent the major portion of the 3 3/4 hours each week on oral language activities such as the following: pronunciation, sentence pattern, and sentence completion drills; vocabulary building exercises; structured dialogues and dialogues on specific topics. Some attention was also given to spelling, grammar, punctuation, and capitalization. There was no formal evaluation in Spanish Language Arts since no grade reports were given. Nevertheless, a progress report was made to the parents of participating students. It is noteworthy that the seven English-dominant students had voluntarily participated in the program.

The teacher used a wide variety of instructional materials to strengthen the program. These were exercise sheets, charts, flash cards, cassette tapes, records, filmstrips, art and craft supplies, library books, and the overhead projector.

Mathematics Instruction

The entire class received new math instruction in the content areas of addition, subtraction, multiplication, division, fractions, and basic geometry. However, three groups were formed to provide students with additional instruction in certain areas. One group, composed of twenty-two students, received additional practice on division; another group of six students worked on multiplication; and a third group of four students received instruction in all these areas. The entire class was instructed during the 1 1/4 hours allotted each week. Independent work activities were allotted 2 1/2 hours. English is used primarily for instruction, and Spanish is not used unless absolutely necessary. The Mathematics resource teacher pulled several students out for additional instruction at another time of the day.

Student assessment of a weekly Mathematics test is used to indicate the student's progress and to review curriculum objectives and teaching strategies.

In addition to the textbook Exploring Elementary Mathematics (Holt, Rinehart and Winston Co.), the teacher also utilizes exercise sheets, charts, flash cards, films (on occasion), an overhead projector, and art and craft supplies to enhance the instructional component.

Cultural Component

This area is integrated with the curriculum taught for Spanish Language Arts. As was indicated earlier, one week (3 3/4 hours) during each month is devoted to bicultural instruction. The Spanish Language Arts teacher includes activities on art, fable, games, Geography, History, holidays, and famous historical and cultural figures as motivating techniques to explore cultural values. This component is taught in both languages with assistance from the instructional aide.

Parent and Community Involvement

The classroom teacher had communicated with ten parents during the year. She was not aware of the number of parents who attended monthly PTA meetings and, although there were periodic class parties which parents supported by the donation of food items, they, nonetheless, did not attend. The teacher did mention the work of a migrant aide who coordinated a parent involvement group at the school.

Instructional Strategies for Grade 6, School J

The sixth grade observed at this school had a total enrollment of twenty-seven students, twenty-four of Mexican descent and three who were white non-Hispanic. The intact class had instruction in Mathematics, English, and the bicultural component in the homeroom. Besides these subjects, the students went to different classes and teachers for other subjects but not as an intact class. There were six forty-five-minute periods during the day.

For purposes of the study, only instructional strategies for Mathematics, English, English Reading, and the bicultural component will be discussed. At this grade level, most of the students had a good command of the English language. Usually those students with limited or no English-speaking ability were recent immigrants from Mexico.

English Language Instruction for Native-English and Native-Spanish Speakers

English Language Arts was taught for one period each day for the entire class. Written and oral English were emphasized with some assignments requiring reading. English Reading was taught separately by the two Reading teachers as remediation for one period each day. Only fourteen of the twenty-seven students were asigned to the class. Instruction was the same for native-English speakers as for native-Spanish speakers; however, Spanish instruction was provided if needed. The remedial Reading teachers and aide were bilingual, and there was a bilingual aide in English Language Arts.

English Language Arts included capitalization, punctuation, spelling, grammar, and creative writing. Reading activities included library assignments and book reports. Activities, except the Reading assignments, involved the entire class with equal amounts of time for teacher instruction and independent work. The main textbooks used were Progress in English/Experiences in Language and Basic Goals in Spelling.

Students in remedial Reading received instruction in phonics and reading comprehension and used the library. The strategy was to provide individualized instruction and maximum use of audiovisual equipement such as cassettes and filmstrips. Textbooks used were the SRA series, Reading Skills Lab, Guidebook to Beter Reading, dictionaries, magazines, and several reading textbooks for different grade levels. Grouping occurred only for the purpose of assigning students to work with either of the two teachers and/or the aide; however, there was individualized instruction within each group.

Students in remedial Reading were recommended by the teacher and counselor based on the previous year's achievement and teacher observation. There was ongoing evaluation by teacher observation and by criterion-referenced and standardized testing.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

Hispanic culture was taught through and combined with Spanish Language Arts. This comprised the bicultural component. The entire class spent forty-five minutes each day in this class. Although grammar, spelling, language mechanics, and poetry were covered, the emphasis was in Spanish Reading and comprehension.

The biclutural component teacher was Hispanic and bilingual. Instruction was in Spanish with the use of English only when absolutely necessary. This approach was used for both native-Spanish and native-English speakers. Using the Senda series as a basis for grouping, the class was divided into three groups. Depending on Spanish language comprehension, students were assigned to the Senda 3, Senda 4, or Senda 5 group. This grouping represented low, average, and high, respectively. The teacher also used novels and poetry for greater exposure to Spanish literature.

In addition to the textbooks, the class used tapes, slides, films, and filmstrips. There were also charts, maps, and displays about Spanish culture incorporated into the learning tasks.

Through the use of all the instructional materials, various aspects of the Spanish culture were presented. These included studies about art, food, legends, games, history, music, holidays, famous people, and geography of Hispanic countries.

Mathematics Instruction

The entire class received Mathematics instruction for forty-five minutes each day. Instruction was in English with the use of Spanish when necessary for better comprehension. The Mathematics instructor was also Hispanic and bilingual.

The teacher used the first ten to fifteen minutes of class time to present a new lesson or review a previous lesson. Afterward, students did independent work while the teacher circulated to each student for personalized individual instruction. Those students who were behind received as much individual instruction as possible to bring them up to the level of the rest of the class. The class received instruction in addition, subtraction, multiplication, division, fraction, percentages, measurements, and word problems. Besides the class textbook, *Exploring Elementary Mathematics*, students worked with teacher-produced exercise sheets, games and puzzles.

Parent and Community Involvement

Direct parental involvement in the school is mostly through parent conferences. The schools maintain a policy of open and direct communication with parents regarding actions needed to be taken by the principals and teachers in significant school affairs. Parents are also encouraged to attend and participate in school board meetings and Bilingual Education Advisory Council activities.

Other parent involvement includes assisting teachers in school functions such as parties and field trips.

Instructional Strategies for Grade 6, School K

The twenty-nine students of Mexican descent who were observed for this grade level participated in a departmentalized educational program at the junior high school. Their first-period class was bilingual education. Only the Language Arts period and the Mathematics period were observed. None of the teachers of these class periods had instructional aides to assist them. In addition to these subjects, the students also received instruction in Speech, Physical Education, Science, and Social Studies. Some students received ESL instruction. A counselor at the junior high school worked periodically with some of the students, and a librarian aide assisted the teachers and students.

Spanish Language Instruction for Native-English and Native-Spanish Speakers

The bilingual education teacher alternated between small-group and whole-class instruction according to the subject matter being taught. Spanish Language Arts instruction, including capitalization, punctuation, spelling, and grammar, was taught at least one week each month. For example, one week was devoted to the writing component, one to the Reading, and one to culture. Then the cycle began once again in this sequential order. For each week of instruction in the writing component, approximately fifty minutes was devoted to direct instruction with the remaining three hours spent in independent activity, which the teacher closely supervised. This writing component was taught to the entire class in both languages. They utilize the workbooks Lengua Espanola 4 (Cultural Centro Americana) and Practicas de Ortografia (Cultural Puertorri-quena, Inc.)

For the Reading component, the teacher grouped the students based on the student's previous academic record and teacher judgement. There were three groups: (1) the first group consisted of twenty-two students (five Spanish-dominant and seventeen balanced bilingual) who were all reading in the Senda 4 Libro de Lectura (Educacion Santillana) and were considered the high group; (2) a second group was formed with five students (one English-dominant, four balanced bilingual) who read in Senda 3; and finally, (3) the third group was composed of two students (one English-dominant, one balanced bilingual) who read Senda 2 and were reading below grade level. Reading instruction for all three groups included silent/oral Reading, phonics, Reading comprehension, and vocabulary development. Direct instruction was provided for fifty minutes and independent activity for three hours each week for the first two groups. The third group received one hour of direct instruction with 2 1/2 hours of independent work. All independent work in Reading was closely monitored by the teacher. Students remained in these groupings for the greater part of the school year. If there was some change, it was determined by the student's ability level. Spanish was predominantly used for Reading instruction. In addition to the Reading textbooks mentioned, the students used the workbook *Lenguaje: Fichas de Trabaja 4* (Educacion Santillana). Other materials that had been incorporated into the instructional program were *Libro Segundo de Lectura* (La Escuela Nueva, S.A. Editores), *La Cuidad Nivel* and *Libro de Lectura 1* (Serie Santillana), *Viajar y Aprender* (W.S. Benson & Co.), and *Nuevas Rosas de la Infancia Cuarto Ano* (Editorial Patria).

The students' assessment was accomplished in a number of ways: (1) vocabulary development was tested in both languages twice a month; (2) grammar was tested on a monthly basis; (3) workbook assignments were examined daily; and (4) spelling exercises were evaluated monthly. In addition to reporting student progress, assessment and evaluation are used for revising curricular objectives and teaching techniques.

Other instructional materials used in the Spanish Language Arts program included exercise sheets, charts, educational cassettes, games tapes, records, filmstrips, library books, films, and the overhead projector.

English Language Instruction for Native-English and Native-Spanish Speakers

Twenty-seven students attended two class periods for English Language Arts. The teacher for this component taught the entire class primarily in English, although she did allow the use of Spanish when it was absolutely necessary. There was no grouping since she considered all the students in her class to be of average ability. The week's instructional schedule had the following pattern: (1) spelling, two periods on Monday and one period on Tuesday; (2) English grammar, both periods, Wednesday and Friday; (3) Reading, Thursday for one period. Each week two periods were used for oral language instruction which included plays, poetry, skits, storytelling, and sharing.

The writing component which consisted of capitalization, punctuation, spelling, grammar, and creative writing (to some extent) was taught 1 3/4 hours each week. Additional time (3 1/2 hours) was assigned to independent work with individual attention provided by the teacher. Finally, direct instruction in the Reading component (oral/silent reading, phonics, and reading comprehension) was provided for fifteen minutes each week with the remaining thirty minutes in the period allotted for independent work.

The teacher assessed the students' progress by various means: (1) Stanford Achieveiment Test administered twice a year; (2) biweekly tests in spelling, English dictation, or vocabulary; and (3) a bimonthly assessment of the students' public speaking abilities. The students had completed The Galaxies (Houghton-Mifflin), their sixth-grade Reading textbook, and were working with the following materials: Basic Goals in Spelling (McGraw-Hill), Progress in English/Experiences in English (Laidlaw), and Sounds of a Distant Drum (Holt, Rinehart, and Winston). The students also used exercise sheets, charts, educational games, and flash cards. Audiovisual equipment that was brought into the classroom included a tape recorder, a record player, filmstrips, film, and overhead projectors.

Mathematics Instruction

Twenty-seven students received direct instruction in addition, subtraction, multiplication, division, and fractions for 1 1/4 hours each week with an additional 2 1/2 hours assigned to independent work. The entire class was taught in English, although the teacher did give independent work assignments that were suited to the student's performance level. Of the twenty students who were tested, five were designated as performing at grade level, nine below grade level, and six at third-grade level. The entire group was considered average and below average in academic performance by the teacher. The teacher administered several tests during the twelve-week school quarter. In addition to sixth-week and twelfth-week tests, the students were also tested twice a month by a teacher-developed instrument. Also, a monthly test, developed as part of the curriculum unit, was given to the students. All were utilized to assess student achievement. Exploring Elementary Mathematics 6th Grade

(Holt, Rinehart and Winston) was the main textbook. However, the teacher supplemented the instructional program with exercise sheets, charts, and educational games.

Cultural Component

This component is integrated with the curriculum taught in Spanish Language Arts. The teacher devotes one week (3 3/4 hours) each month for instruction in the cultural heritage of the Mexican-American student. She incorporates material on fables and legends, games, Geography, History, holidays, music, and important historical and cultural figures for motivating students to explore various aspects of their culture.

Cultural units developed by the Title VII bilingual office as well as resource material from other textbooks, such as, The Story of the Mexican-Americans, and The Men and the Land, and The Mexican-American in American History (all from the American Book Co.) have been implemented.

Parent and Community Involvement

Open house at the junior high school was held during the first week in March. Since the on-site visitation occurred before this date, no report could be made on parent/teacher contacts.

PROJECT 26

PROJECT INFORMATION

Project Context and Target Population

Project 26 began in 1972. During the 1975-76 school year, 284 students in kindergarten through grade 3 were involved in the project at the request of their parents. These students were in ten classrooms at four schools, where the student turnover ranged from 26% to 42% a year.

Students in the project come from families with an average annual income of $7,000 and live in single-unit or multiple-unit dwellings in the suburbs of a large city. Although the majority of the heads of household are semiskilled workers, at one school 23% of the families are on welfare.

This suburban city receives an overflow of Asian and Hispanic families from a district of the adjacent metropolitan city. Therefore, the ethnic composition of project school is approximately 35% Hispanic descent, 23% black, 16% Asian, and 24% white non-Hispanic.

Goals and/or Objectives

Project 26 is one of four that form and are funded through a consortium. The goals and objectives of these projects are therefore quite similar and include the following:

- To increase reading and mathematics skill levels using English and Spanish as languages of instruction
- To instill in project students a feeling of pride in their culture through bicultural and multicultural activities
- To help project participants and their parents develop a better understanding of the educational system by improving communication between the home and the school
- To provide a site where observers may watch a maintenance-type bilingual program in action

- To avoid costly duplication by participating with the other consortium projects in staff development, curriculum development, media production, testing and evaluation, dissemination, and community involvement activities

Project Staff

During the 1975-76 school year, ten full-time teachers, six full-time aides, and three "three-hour" kindergarten aides took day-to-day responsibility for bilingual instruction. These staff members were all bilingual and were supported by ten part-time volunteers of whom five were bilingual; two part-time, bilingual, community liaison workers; and the full-time, bilingual, Project Director. During the 1975-76 school year, ten bilingual professional consultants were also paid by the project to provide inservice training in language instruction, Science, cultural studies, Music, and classroom management.

In 1975, all staff members mentioned above were in their first or second year with the project with the exception of three teachers who had been with the project since it began in 1972. All project staff were Hispanic with the exception of two white, non-Hispanic teachers; five white, non-Hispanic volunteers; one white, non-Hispanic consultant; one Filipino teacher; and one Filipino aide.

Remedial reading teachers, speech and hearing specialists, psychologists, and learning disabilities teachers funded by the District or Title I were available to project students on a limited basis as these support personnel spoke only English.

The services of a full-time, bilingual media center staff and a full-time bilingual evaluator were also shared by all consortium sites.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	2	2
Total number of questionnaires received	2	2
Highest earned college degree:		
No degree		2
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	2	
Teaching credential only		
M.A. or higher		
No response		
Type of state teaching credential held:		
Non-credentialed		
Temporary, provisional, partial-fulfillment, or emergency		
Regular credential	1	
Bilingual-bicultural teaching credential	1	
No response		
Years of full-time teaching experience:		
Less than 1 year		1
1 year		
2 years	1	1
3 years	1	
4 years		
5-9 years		
10-19 years		
20-29 years		
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year		1
1 year	1	
2 years	1	1
3 years		
4 years		
5 years		
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		
6-15 quarter units (4-10 semester hours)	2	
16-30 quarter units (11-20 semester hours)		
More than 30 quarter units (more than 20 semester hrs.)		
No college training in bilingual-bicultural		2
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days	1	2
15-30 days	1	
More than 30 days		
None		
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$64,000
Other Federal and State	-0-
Other	-0-
TOTAL	$64,000

- Per pupil $225.00

In addition to the above, the following funds were designated for bilingual project schools:

Intensive Sample School

Federal and State*	Total grants not given.
Other	Total grants not given.
TOTAL	Total grants not given.

- Per pupil $269.73
- Total per pupil additional funds for bilingual project participants $494.73

The Title VII grant is used for aides' salaries, materials, and in-service training and travel. The school district pays the salaries of all the teachers and of two full-time aides.

CLASSROOM INFORMATION

Impact Study Samples

The information included here is based on discussions with project staff and on observations in one of the project's two second-grade classrooms.

---

*Titles I and II, state early childhood education, and remedial reading funds.

Instructional Strategies for Grade 2

Major Features

- This second-grade class meets in an open-classroom setting. Students are therefore aware of and often involved in activities taking place in other parts of the cluster.
- The English Reading program and parts of the Spanish Reading program have been heavily influenced by the District's Total Total Reading Program. This program, used by all teachers in the District, has a heavy phonics component. For example, students learn rules for sounds made by blends and diphthongs and recite these rules when provided with flash card cues.
- In this classroom, the teacher groups students heterogeneously as well as homogeneously by ability level.

English Language Instruction for Native-English and Native-Spanish Speakers

After beginning-of-the-year observations, the teacher placed each student in a homogeneous group for Reading instruction and in a heterogeneous group for Language Arts instruction. All Reading groups spend about three hours a week on phonics and Reading comprehension activities. Students in the lower-ability Reading group receive an additional 2 1/2 hours a week on phonics and Reading instruction from a Title I Reading specialist. The lower group always works under teacher supervision; the other three groups spend about 50% of their time on independent work.

Reading group activities include dictations, choral recitations cued by phonics flash cards, the reading of words copied from the blackboard, and discussions of stories in Macmillan (for the higher group) and Harper & Row (for the lower group) readers.

The students spend about 3 1/2 hours a week in their heterogeneous groups working on capitalization, punctuation, spelling, grammar, and creative and nonfiction writing assignments. These activities take place at learning stations where students might alphabetize a list of names of students in the room, underline and pronounce phonograms in a list of words, or write a short story using new vocabulary words. During this time, students are encouraged to help each other as well as to request help from the teacher or the classroom aide.

Although English comprehension is rarely a problem, the teacher does not hesitate to explain activities or concepts in Spanish to students she thinks might be having trouble following a lesson. All students spend one hour each week selecting books and reading independently in the library.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

Students in this second-grade classroom remain in their English Reading groups for Spanish Reading instruction and are assigned to one of three homogeneous groups for Spanish Language Arts instruction.

The twenty students in the three highest-ability Spanish Reading groups spend about two hours a day on Spanish Reading and phonics activities such as drawing pictures to illustrate new Spanish words, reading from the Santillana series readers, and answering questions in accompanying Santillana workbooks. Eight students in the lowest-ability Reading group use time normally allotted for instruction in Spanish to work with a compensatory education Reading specialist on Reading fundamentals in English.

For two hours each week, students are placed in homogeneous ability groups and rotate through three centers for grammar and spelling instruction. At these centers, the aide, the teacher, and a bilingual resource teacher supervise activities such as oral descriptions of selected pictures ("esta es una mesa, esta es una silla"), the matching of words and pictures, and the writing of simple sentences using new vocabulary words. English is spoken freely during all Spanish language activities.

Mathematics Instruction

At the beginning of the year, the classroom teacher divides her students into high-, medium-, and low-ability groups on the basis of a district-developed Mathematics test. Students in all groups are exposed to the new math approach as presented in the California State Series Sets and Numbers (L. W. Singer Co.). Elementary School Math II (Addison-Wesley) is also used to cover addition, subtraction, and elementary measurement problems. The lower-ability groups move more slowly and work with more supervision than do the upper-ability students. The teacher, therefore, spends the majority of the 3 3/4 hours allotted weekly to Mathematics instruction with students in this lower group. The aide supervises seatwork done by the medium-ability group; the higher-ability students work on their own and ask questions of the teacher or aide as needed. Although Mathematics instruction is conducted in English, students are free to use Spanish whenever they wish.

Cultural Component

Multicultural awareness is developed during Social Studies activities, classroom discussions of upcoming holidays, and stories read to the class by the teacher. Activities in Social Studies centers are based on a textbook entitled Concepts and Values (Harcourt Brace Jovanovich) and include discussions of different ways of living according to people's income and geographic location.

At story time the teacher uses such books as Everyday Fun and Carnival Frolic with Children in Brazil (Doubleday Doran Co.) and Joji and the Fog (William Morrow & Co.) to lead into discussions on cultural awareness.

The class has celebrated holidays like Martin Luther King Day by coloring pictures of Dr. King and then discussing events in his life.

Most culture-related lessons are presented to the entire class in English by the classroom teacher.

Parent and Community Involvement

Many students in the project have mothers and fathers who work outside their homes. These parents often send decorations or food to school with their child when they cannot actually participate in classroom functions. Two to four parents from each classroom attend PTA meetings, chaperone field trips, or actually attend classroom parties.

Once a semester, project teachers meet with parents to share observations on the student's progress at home and at school.

PROJECT 27

PROJECT INFORMATION

Project Context and Target Population

This bilingual project began in 1971. The school district is located in a city of more than a million people that is multiethnically rich in Spanish, black, and other cultural influences.

As a port of entry from Latin America, the city has had a continuous influx of Spanish-speakers for many years, and with the arrival of the Cuban refugees there has been a sharp upsurge in the community's awareness of the Hispanic language and culture. The mayor's office has estimated the Latin American community of the city to be approximately 18% of the total population. While newer data are not currently available, indications are that the number has increased since the original study was made. A survey by the city's university states that there are approximately 100 business enterprises and numerous Spanish-speaking professionals in the community. There are also many professional and social organizations representing Cuban, Honduran, Ecuadorian, Salvadorian, and Costa Rican groups. At least two weekly newspapers are printed in Spanish and there exist several radio and television programs broadcast also in Spanish.

The Spanish-speaking population is somewhat scattered throughout the city. While no Latin "barrio" or ghetto exists as compared to other areas in the Southwest or New York, there do seem to be two main areas of concentration. The participating schools located in one of these areas include one elementary school, two junior high schools, and one high school. The second area of concentration is served by the remaining two program participants, one elementary school and one junior high school. There are approximately 94,000 enrolled in the public schools and about 27,000 enrolled in the parochial schools.

The overall scope of the bilingual project consists of a total of 800 students (of which 436 are elementary students) in six different schools. Bilingual sections of kindergarten, first grade, and second grade were financed totally by LEA funds. The other grades utilized ESEA Title VII funds for the bilingual students. Spanish-speaking students have first choice of being matriculated into the bilingual/bicultural program. Non-Spanish speakers are placed on a waiting list.

The schools involved in the AIR Impact Study include School A, grades 3 and 6; and School B, grades 2, 4, and 5. The student enrollment at School A is estimated to be composed of the following ethnic groups: 18% black, 45% white non-Hispanic, and 35% to 40% Hispanic. The enrollment at School B is 65% black, 35% Hispanic, and less than 1% white non-Hispanic.

School A has a student enrollment of about 600. The project has estimated that 28.6% of that total enrollment is non-English-dominant and that out of the total number (210) of the students served at this school by the project, 125 are non-English-dominant and 85 are English-dominant. School B has a student population of 650. It is estimated that out of that figure 16.3% are non-English-dominant. Of the 210 bilingual project participants there, 106 are non-English-dominant and 104 are English-dominant.

Of the non-English-dominant students enrolled at School A, 89.4% come from low-income families; of the non-English-dominant enrollment at School B, 67.9% come from low-income families. On the whole, the project estimates that School A has a "low-income" population of 43 (296 are English-dominant and 137 are non-English-dominant). School B has an estimated 453 students coming from low-income families of which 72 are non-English dominant and 381 are English-dominant. These English-dominant figures, for the most part, refer to the black population.

Most of the student's fathers are semiskilled workers, and the mothers, servants. The estimated average annual gross income of the families is $4,000 to $6,000. Housing in the neighborhood where the school is located consists primarily of duplexes along with other single- and multi-unit dwellings. Large- and extended-family patterns are commonly found. The mobility rate in and out of School A is from 20% to 23%.

The School B neighborhood is fairly stable with an estimated 10% movement into or out of the school. The housing there also consists of mixed single- and multiple-unit dwellings, and the dominant type of occupation held is semiskilled work. The average annual gross income of the families ranges from $4,000 to $8,000.

Goals and/or Objectives

The program's main objectives are the following:

- To provide an opportunity for students of limited Spanish-speaking ability to perform as well as their peers
- To maintain and augment these students' native language abilities
- To enhance the self-concept of the Spanish-speaking student through a culturally relevant curriculum
- To provide an opportunity for the English-speaking student to acquire a functional use of a second language

Project Staff

The bilingual project consists of a full-time (year-round) Project Director (white, non-Hispanic), a stenographer, and two bilingual specialists. There are also eight bilingual associate teachers. Four of these are assigned to work with the elementary program and four are assigned to the secondary program. There are also thirteen bilingual instructional aides participating in the program, eight of whom are assigned to the elementary program and are hired on a ten-month basis.

Aside from the above bilingual personnel, there are twenty-six classroom teachers who participate in the program but are funded through LEA funds. Fourteen of these teachers participate in the elementary program. There are no district-provided media or curriculum-material specialists and rarely any professional consultants. The District also makes no provision for remedial Reading teachers in the schools included in the study sample. This is expected to be covered by the classroom teachers. The District does, however, provide one English-dominant Educable Mentally Retarded (EMR) teacher for School B who serves some students in the bilingual project. The project also employs an evaluator on an annual contractual basis.

The elementary bilingual sections are conducted by a team of a bilingual teacher or a bilingually oriented classroom teacher and a bilingual teaching assistant. Each teaching assistant serves two classroom teachers. Two bilingual associate teachers and one part-time bilingual specialist are also assigned to assist in each elementary school.

The students in the secondary program receive instruction from a team composed of three bilingual or bilingually oriented classroom teachers, one bilingual associate teacher, and two bilingual teaching assistants. The teams are further assisted by one bilingual specialist.

Out of the fourteen classroom teachers participating in the bilingual program at the elementary level, three are Hispanic, ten are black, and one is white non-Hispanic. The bilingual teachers are all of Hispanic descent. It is anticipated that as the classroom teachers become more fluent in Spanish through the inservice training program the services of the associate teachers will be withdrawn and bilingual teaching assistants will be provided.

The associate teachers are trained teachers from Latin American countries who are participating in a foundation teacher-exchange program. They are responsible for instructing in Spanish.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides and Associates *
Total number of teachers/aides in Impact Study	5	
Total number of questionnaires received	3	2
Highest earned college degree:		
No degree		1
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	3	1
Teaching credential only		
M.A. or higher		
No response		
Type of state teaching credential held:		
Non-credentialed		1
Temporary, provisional, partial-fulfillment, or emergency		
Regular credential	3	
Bilingual-bicultural teaching credential		1
No response		
Years of full-time teaching experience:		
Less than 1 year		
1 year		
2 years		
3 years		
4 years		
5-9 years	2	1
10-19 years	1	1
20-29 years		
30 or more years		
No response		

---

*"Associates" refers to trained teachers from Latin America participating in a teacher-exchange program.

	Teachers	Aides and Associates
Years of teaching in a bilingual program:		
Less than 1 year		
1 year		
2 years	1	1
3 years	1	
4 years		
5 years	1	
More than 5 years		1
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		
6-15 quarter units (4-10 semester hours)		1
16-30 quarter units (11-20 semester hours)	1	
More than 30 quarter units (more than 20 semester hrs.)	1	
No college training in bilingual-bicultural	1	1
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days	2	1
15-30 days		
More than 30 days	1	1
None		
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$214,000
Other Federal and State	-0-
Other (LEA)	43,000
TOTAL	$257,000

- Per pupil $321.25

In addition to the above, the following funds were designated for bilingual project schools:

School A

Federal and State	-0-
Other	-0-
TOTAL	-0-

- Per pupil -0-
- Total per pupil additional funds for bilingual project participants $321.25

School B

Federal and State	-0-
Other	-0-
TOTAL	-0-

- Per pupil -0-
- Total per pupil additional funds for bilingual project participants $321.25

The Title VII grant is allocated so that $181,000 is spent on instruction and $33,000 on staff development. The LEA pays for nine teacher aide/community liaisons and for field trips and other miscellaneous extras for the bilingual project. The basic per pupil cost in the District, not including the above special funds, is $1,084.00.

CLASSROOM INFORMATION

Impact Study Samples

One of the two third-grade classrooms was randomly selected to participate in the Impact Study and was also later selected for detailed observation as part of the intensive study. This classroom of thirty pupils is located at School A and consists of ten Central Americans, seven South Americans, six white non-Hispanics, and two blacks.

One of the two fourth grades in the project was randomly selected for AIR testing and for detailed ovservation as part of the intensive study sample. This classroom is located at School B and consists of thirty-two students. The ethnic composition of the classroom consists of fifteen blacks, one Asian, one white non-Hispanic, one Puerto Rican, one Mexican, two Central Americans, and eleven Cubans (two of whom are half-Cuban and half-white-non-Hispanic).

One of the two sixth-grade classes was randomly selected for testing purposes for the Bilingual Impact Study and for detailed observation as part of the Intensive Study Sample. This sixth-grade classroom is located at School A and consists of thirty-six students of whom twenty-three are Hispanic, eight are of white non-Hispanic descent, and five are black.

Instructional Strategies for Grade 3

Major Features

The teacher in this classroom is assisted on a part-time basis by an aide who has taught in the bilingual project for over five years. She has had over thirty days of inservice bilingual education training along with other related college training. She is totally responsible for teaching English as a Second Language (ESL) and Spanish as a Second Language (SSL).

English Language Instruction for Native-English and Native-Spanish Speakers

English Language Arts is taught by the classroom teacher to three ability groups: Level 10 (eight students) is the high group, Level 8 (thirteen students) is the medium group, and Level 6 (five students) is the low group. All groups use the Scott Foresman Reading Systems series. Level 8 is appropriate for third-grade Reading. Level 6 is appropriate for second-grade Reading. Level 10 is appropriate for advanced third-graders. Aside from these three groups, there is a group of three students who are beginning English readers and receive English Language Arts and Reading instruction from the second-grade teacher. The teacher spends approximately 1 1/2 hours daily on the English Language Arts block which includes written and oral language skills in addition to Reading. Groups are rotated for group instruction while the others work independently in Language Arts and on Reading follow-up assignments. All areas in written Language Arts (including spelling) are taught on a small-group basis (Reading groups) with the exception of grammar which is taught on a whole-class basis. The teacher estimates that approximately two hours a week are devoted to subjects within the written Language Arts area of which at least half of this time is spent doing independent seat work. She also estimates that approximately half an hour a week is spent on oral Language Arts skills, storytelling, choral reading, and sharing skills conducted within the Reading group structure. Dramatic arts, poetry, and sharing skills, as well as library skills, are taught on a whole-class basis.

Each group spends approximately five hours a week on direct Reading activities. Each group receives approximately 2 1/2 hours a week of direct teacher instruction, and the remaining time is spent engaged in independent work.

The criteria for designating the ability groups is based on the standardized test in the Scott Foresman Reading Systems series and by teacher observation. Regrouping can occur at the end of unit tests contingent upon ability and need.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

Spanish Language Arts is taught by the bilingual associate teacher (Latin American exchange teacher) to six different groups. Written and oral Language Arts tasks are incorporated into the Reading assignments. Group A is a low-ability group of five pupils who are all bilingual and were reading Nuestros Amigos (Laidlaw) at the time of visitation. Group B is an average-ability Spanish-dominant group of four pupils who were reading the text Del Campo al Pueblo (Laidlaw) at the time of visitation. Group C is a bilingual, average-ability group of three pupils who were also reading Del Campo al Pueblo at the time of visitation. Group D is a Spanish-dominant, high-ability group of two pupils. Group E is a bilingual, high ability group of two pupils. Both groups D and E were reading Adventuras Maravillosas (Laidlaw) at the time of visitation and at times are brought together and taught as a group of four. Group F consists of four students (two Spanish-dominant, two bilingual) of average ability who were reading Nuestros Amigos at the time of visitation.

Groups B through F receive approximately thirty minutes of instruction and ten minutes of independent work time on a daily basis. Group A, being the slowest, receives approximately forty-five minutes of daily instruction and about fifteen minutes of independent work time. Each Reading textbook used here is accompanied by a workbook. Each group receives daily homework assignments in addition to the classroom independent work tasks.

Students are able to change groups on a unit-completion basis depending on their demonstrated ability. The criteria for designating grouping patterns are based on teacher-made tests in Spanish Reading which assess comprehension, pronunciation, and written abilities.

The regular classroom teacher also teaches and reinforces Spanish written Language Arts to the bilingual and Spanish-dominant students when the English-dominant students are engaged in Spanish as a Second Language (SSL) with the aide. She covers the areas of punctuation, spelling and grammar using an entire-class teaching approach.

ESL and SSL instruction is given by the instructional aide. Her main approach to both is a bilingual one. That is, both languages are used, and both languages are allowed freely. However, the students must always speak in complete sentences when practicing their second language. The techniques used on a continuous basis are pronunciation, sentence pattern, sentence completion, and vocabulary building drills. These groups are taught in the back of the room while the teacher teaches Spanish grammar to the rest.

Mathematics Instruction

Mathematics is taught by the classroom teacher, who is assisted at times by an instructional aide shared with another classroom. She employs a whole-class approach with some individualizing and grouping according to need. The classroom teacher considers the class to be of medium ability in general. She considers three students to be of high ability and the rest of medium ability with a few of these near low ability.

The skill areas of addition, subtraction, and multiplication were covered and the introduction of ratios and percentages was in process at the time of visitation. The major textbook used, Elementary School Mathematics (Addison-Wesley), stresses new math concepts. The amount of time spent on the daily Mathematics lesson is flexible depending upon need. However, an average of forty-five minutes a day (five times a week) are devoted to Mathematics learning. Approximately twenty minutes daily are occupied by independent and individualized tasks. The teachers allow both languages (English and Spanish) to be used freely by the students, and she employs both in teaching.

Cultural Component

This area is not taught as a separate unit but is incorporated into the areas of Social Studies and Music. The culture of South America, Central America, and the Caribbean is especially incorporated into the learning scheme for special events and occasions (i.e., Cuban Independence Day, the Guatemalan earthquake, etc.). The students contribute and participate in the Spanish dance, music, and poetry programs presented at the annual Pan American Day and are encouraged to share about their country in the classroom on an ongoing basis. Latin American music is also included as part of the music component which is held three times a week for twenty-five minutes. In Social Studies and Music, the use of both languages is allowed.

Instructional Strategies for Grade 4

Major Features

The teacher in the classroom is bilingual; however, she does not teach any Spanish-related subjects because she did not think she knew Spanish well enough to teach it. Therefore, these areas are taught only by the associate and assistant teachers.

The Latin American associate teacher recently came from Argentine and is responsible for teaching SSL to the English-dominant students. Her knowledge of English is limited.

English Language Instruction for Native-English and Native-Spanish Speakers

Written Language Arts is taught by the classroom teacher for approximately forty minutes daily using a whole-class approach. The language skills covered include capitalization, punctuation, spelling, grammar, and creative and nonfictionaly writing. Approximately thirty minutes are spent daily on direct instruction, and the remaining ten minutes are dedicated to independent study. Approximately twenty minutes a week are spent in this area.

The class is broken up into five ability groups for Reading instruction. Group A is considered to be remedial in all subjects and consists of three Spanish-dominant students. The instructional aide is responsible for the Reading instruction of this group and spends approximately fifteen to twenty-five minutes daily (in a separate room) on direct Reading instruction. Independent work (about forty minutes) is done when the students return to the regular classroom where the rest of the students are involved in rotating reading groups with the teacher and in independent seat work. The remedial group was reading Around the Corner (Harper and Row Basic Reading Program) at the time of visitation.

Group B is a low-ability Reading group which consists of eight students. One is English dominant and the rest are bilingual. The group is also the responsibility of the instructional aide and is structured in the same way as the remedial group. This group was currently reading Friends, Old and New (Scott Foresman) at the time of visitation.

The next three groups (C, D, and E) are taught by the classroom teacher on a rotating basis. All were reading at some point in the book Open Highways (Scott Foresman) at the time of visitation. The teacher indicated that approximately forty minutes of instruction and forty minutes of independent seat work is given to each group on a daily basis. Group C is considered to be medium/low ability and consists of nine students of whom five are bilingual. Group D also consists of nine Medium/low ability students of whom three are English dominant and six are bilingual. Group E consists of seven English-dominant pupils and is considered to be of average ability (in terms of grade level) by the teacher. All groups are rarely regrouped and, if so, the change is made depending upon ability. Grouping patterns are determined by textbook, by standardized Reading test scores, and by the records kept by the previous teacher.

Spanish Language Instruction for Native-English and Native-Spanish Speakers

Spanish Language Arts is taught to three groups by the bilingual paraprofessional instructional aide. The groups meet with the aide in a separate classroom (the bilingual room) on a rotating basis and spend approximately twenty minutes daily on Spanish Language Arts. Approximately ten minutes are devoted to instructional time and another ten minutes to independent work. Group A consists of three Spanish-dominant students who are beginning Spanish readers. Most of their activity is directed toward developing Spanish Reading skills. The textbook used at the time of visitation was Aprendemos a Leer (Laidlaw). Group B consists of three bilingual, medium-ability students who receive more overall exercises and grammar instruction than Group A. They also were reading in the textbook Aprendemos a Leer at the time of visitation.

The last group (C) consists of eleven bilingual students who are considered to be of high Spanish ability by the aide. They were reading Aventuras Maravillosas (Laidlaw) at the time of visitation.

Spanish oral Language Arts is not covered in any group except for Spanish game and song activities on given occasions. The area of written Language Arts is covered by the textbooks accompanying workbook assignments which include punctuation, spelling, and grammar lessons. The three groups have never regrouped. The grouping pattern is determined by last year's records and by teacher observation.

Second Language Instruction for Native-Spanish and Native-English Speakers

ESL instruction is given to the Spanish-dominant students by the classroom teacher and SSL instruction is given to the English-dominant children (in another room) by the bilingual associate teacher for approximately thirty minutes each morning. However, the teacher indicates that she really does not teach ESL in the strict sense, but rather uses it as extra English practice for Spanish-dominant students. She mostly uses a total-immersion English approach while the associate teacher always uses a total-immersion Spanish approach in teaching SSL. The classroom teacher mostly emphasizes pronunciation, sentence pattern, sentence completion, and vocabulary building skills and no conversational techniques. The SSL associate teacher follows a similar pattern.

Mathematics Instruction

Mathematics instruction is taught with a whole-class approach by the classroom teacher (with the exception of remedial Mathematics). An average of forty minutes daily is spent in the content area of Mathematics. Approximately half of that time is spent in direct classroom instruction (twenty minutes), and the rest is spent on independent work which overlaps with independent Reading seat work. English is the only language employed by the classroom teacher in the instruction of Mathematics, and the major textbook used is Elementary School Mathematics (Addison-Wesley). The skills covered include addition, subtraction, multiplication, division, fractions, and measurement.

The students in the low-remedial English Mathematics section also receive Mathematics instruction from the bilingual instructional aide. While the entire class is involved in Mathematics instruction or seat work, she individually tutors and groups those remedial students according to need. The major textbook used for these eleven students is Practice Exercises in Arithmetic (Continental Press Series, grade 1 to 3).

Cultural Component

Hispanic culture is not taught as a separate unit but is occasionally incorporated into the areas of Social Studies and Art mostly by the bilingual instructional aide. The content areas which have been covered include Art, games, holidays, and Music. Approximately thirty minutes a month are spent on this area and the principal language used is English.

Instructional Strategies for Grade 6

Major Features

The teacher in this classroom is an English-monolingual black who is assisted by a teacher assistant responsible for teaching Spanish as a Second Language and Spanish Language Arts skills. In addition, the Latin American exchange associate teacher is involved in teaching History, Science, Mathematics, and Spanish Reading. After the regular classroom teacher gives a lesson in these subjects in English, the Hispanic associate teacher gives the same lesson in Spanish either the next day or immediately after. Sometimes she just repeats or clarifies in Spanish what the teacher is trying to get across for the benefit of the Spanish-dominant students. However, the exchange teacher's English-speaking ability is limited. The classroom is considered to be of medium/high ability by the teacher.

English Language Instruction for Native-English and Native-Spanish Speakers

In addition to Reading, written and oral English Language Arts is taught by the classroom teacher. Written Language Arts consists of punctuation, spelling, grammar, and creative and nonfictional writing and is taught on a whole-class basis. Approximately one hour a day is spent in this area of Language Arts. Out of that hour, approximately fifteen minutes are spent in direct instruction and about forty-five minutes on independent task assignments.

Poetry, skits, and sharing skills are utilized in developing English oral Language Arts and are also taught on a whole-class system. Approximately fifteen to twenty minutes a week are devoted to this area.

The class is divided into two main groups for English Reading instruction. While the classroom teacher works with one group, the instructional aide works the other group in the area of Spanish Reading. They alternate groups every other day. Group A is a high-ability group and consists of thirteen pupils. They were reading Voices (level 19) of the Scott-Foresman Reading Systems at the time of visitation. Group B consists of twenty-two medium-ability students who were reading Exploring Afar from Scott-Foresman's Open Highway Series at the time of visitation. There is one student who receives individual help by the teacher because he is a Spanish-dominant, beginning-English reader. The teacher indicates that there are no remedial readers in this classroom. The basic Reading program consists of phonics, comprehension, and oral and silent reading as well as other related language skills. Library skills are covered on a whole-class basis. Each group receives about twenty minutes of direct instruction every other day. Approximately forty minutes are spent on independent preparation or follow-up seat work. The students are rarely regrouped; but, if an individual were to change Reading groups, this would be done on the basis of ability and need. The criteria for designating the grouping pattern upon entry are based on standardized tests and on teacher observation.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

Spanish instruction is given to two groups, each of about ten pupils who are either bilingual or Spanish dominant, by the bilingual teacher assistant. The English-dominant students receive SSL, also from the same aide. The amount of time spent is exactly the same as the English Reading period since English and Spanish Reading sessions meet concurrently and the students alternate every other day. The average-ability group was reading the textbook Por Tierras Vecinas (Laidlaw) while the higher-ability group was reading Por Los Caminos del Mundo (Laidlaw) at the time of visitation. The main emphasis of this class revolved around oral and silent reading along with grammar skills. The students are given teacher-made exams, weekly quizzes, and workbook/worksheet assignments. The criteria for grouping, according to the aide, are based mostly upon teacher-made tests and last year's records. Because of lack of space, class is usually held in an empty room (while another class is in recess) or in the basement.

Second-language instruction is given by the teacher aide. She meets with a group of six Hispanic, English-dominant students for forty minutes every day in the basement. She uses the books Camino Al Escuela (Laidlaw) and Victoria to introduce Spanish Reading. She also meets with a group of twelve non-Hispanic, English-dominant students for SSL instruction for thirty-five minutes daily. The regular classroom teacher teaches ESL concurrently to the remaining students. Both use a total-immersion approach in teaching. Both ESL and SSL are taught by using pronunciation, sentence pattern, sentence completion, and vocabulary drills. Controlled conversation and audiovisual techniques are rarely employed.

Mathematics

Mathematics instruction is given to the whole class by both the classroom teacher and by the associate teacher. When one is responsible for instruction, the other usually gives individual help. Approximately fifteen minutes daily are spent in instructing the class. About thirty minutes are devoted to independent work with the teachers giving individual help. The major text used is Elementary School Mathematics (Addison-Wesley), and the content skills covered include addition, subtraction, multiplication, division, and fractions. Percentages and measurement skills were not yet introduced at the time of visitation; however, the teacher planned to implement them before the end of the year. Both languages are used in teaching Mathematics, depending on whether the teacher involved is English-dominant or Spanish-dominant.

Cultural Component

This classroom teacher does not cover Hispanic culture. The Social Studies units center around Asian and European History and Geography.

Parent and Community Involvement

The project used the following media to publicize the Title VII project in the community during the current year: newspaper, radio, television, filmstrips, and newsletters. The Bilingual Advisory Committee meets monthly, and members are encouraged to aid in the development of program objectives, budget, evaluation, and dissemination concerns.

The third-grade classroom teacher feels that it is very important to involve the parent whenever she spots a particular problem with her pupils. When she observes an academic, social, or medical problem, she sends a note home with that particular student asking for the parents to call her at home in the evening. She had had telephone conversations with approximately ten parents by the time of visitation. Approximately fifteen parents are involved each semester in organizing and contributing to classroom holiday and birthday parties. Two parents are involved each semester in helping to supervise field trips, and about ten to twelve "classroom mothers" are actively involved in the school's Mother Co-op Club which meets on a monthly basis.

The fourth-grade classroom teacher indicated that there is very little parent participation in her classroom. No parents are involved in any classroom-related activities; however, when class parties are held, some parents will send food (i.e., cookies) with their children. The teacher felt that the lack of parent participation was mainly due to the fact that most parents work during the day. She will meet approximately four parents a year for student conferences at either her or their request when a problem arises. She indicated, however, that she usually has a good turnout of parents (75%) at the annual school open house.

In the sixth-grade classroom, parent involvement is considered to be good in evening school-sponsored events such as the spring festival, Pan American Day, the Christmas program, and open house activities. About six mothers are involved with the Mother's Club, which meets monthly, and approximately four parents a semester participate in class parties. The teacher indicates that he will have conferences with about fifteen parents during the 1975-76 school year.

PROJECT 28

PROJECT INFORMATION

Project Context and Target Population

Project 28 started in 1971. The District is located in a small port city forming part of a major metropolitan area. Ship construction is one of the city's major industries as is the refinement of petroleum products at a large oil refinery. Area residents include approximately 18% of Hispanic descent, 18% black non-Hispanic, 2% Asian, 1% Native American, 1% Portuguese, and 60% white, non-Hispanic. The project target population, however is about 50% Hispanic.

During the 1975-76 school year, the project served 500 students in kindergarten through grade 5. These students attended four schools and were divided among seventeen project classrooms. Students were from single-unit or multiple-unit dwellings where the head of household was a semiskilled worker or other laborer whose average income was $6,000. Principals at two schools vistied indicated that the turnover in student body in the district ranged from 25% to 50% annually.

Goals and/or Objectives

This bilingual project is one of four that form and are funded through a consortium. The goals and objectives of these projects are therefore quite similar and include the following:

- To increase Reading and Mathematics skill levels using English and Spanish as languages of instruction
- To instill in project students a feeling of pride in their culture through bicultural and multicultural activities

- To help project participants and their parents develop a better understanding of the educational system by improving communication between the home and the school
- To provide a site where observers may watch a maintenance-type bilingual project in action
- To avoid costly duplication by participating with other consortium members in staff development, curriculum development, media production, testing and evaluation, dissemination, and community involvement activities

Project Staff

The project staff for the 1975-76 school year included seventeen teachers, seventeen aides, one full-time community liaison worker, one part-time community liaison worker, one full-time Spanish remedial Reading and materials resource teacher, and the full-time Project Director. All project staff were bilingual and, with the exception of five white non-Hispanic aides, all project staff were of Hispanic descent.

During the 1975-76 school year, this project also enjoyed the services of three district-funded aides who were available to bilingual project classrooms on a part-time basis.

The services of a full-time, bilingual, media center staff and a full-time evaluator are shared by all consortium members.

This project has an active internship program. Project aides are encouraged to take courses at local colleges and universities. The aides then train with project personnel in preparation for teaching positions in the district. About a third of the project's seventeen teachers started their teaching career as bilingual project aides or interns. Nine of the remaining teachers have taught in the project for three or more years.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	5	10
Total number of questionnaires received	2	5
Highest earned college degree:		
No degree		2
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	1	3
Teaching credential only		
M.A. or higher	1	
No response		
Type of state teaching credential held:		
Non-credentialed		2
Temporary, provisional, partial-fulfillment, or emergency	1	
Regular credential	1	1
Bilingual-bicultural teaching credential		
No response		
Years of full-time teaching experience:		
Less than 1 year	1	1
1 year		
2 years		
3 years		1
4 years	1	
5-9 years		1
10-19 years		
20-29 years		
30 or more years		
No response		2

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year		2
1 year		1
2 years		1
3 years	1	
4 years	1	
5 years		
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		
6-15 quarter units (4-10 semester hours)	1	
16-30 quarter units (11-20 semester hours)		
More than 30 quarter units (more than 20 semester hrs.)		
No college training in bilingual-bicultural	1	5
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days	1	1
15-30 days		1
More than 30 days	1	
None		3
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$105,673	
Other Federal and State	40,200	(Title I & ETDA)
Other (County)	7,000	
TOTAL	$152,873	
• Per pupil		$306

Funds in addition to the above which are designated for bilingual project schools:

School A

Federal and State	$77,440	
Other	-0-	
TOTAL	$77,440	
• Per pupil		$174
• Total per pupil additional funds for bilingual project participants		$480

School B

Federal and State	$235,140	
Other	-0-	
TOTAL	$235,140	
• Per pupil		$408.23
• Total per pupil additional funds for bilingual project participants		$714.23

Title VII funds paid the salaries of sixteen aides, two community workers, one project director, and one secretary. Title VII money also paid for materials and supplies and staff-incurred conference expenses.

ESEA Title I provided project calssrooms with the part-time services of eleven aides as well as money for materials, field trips, and inservice training activities. During the 1975-76 school year, students scoring on or below the fiftieth percentile on standardized tests received $30 composed of ESEA Title I and State Bill 90 funds.

Educational Training and Development Act (ETDA) funds underwrote the cost of tuition and books for project staff seeking further training. These funds were also used to meet expenses incurred during onsite inservice training.

State "Teachers Corps" funds enabled one part-time project aide to attend college classes. State monies also provided aides and materials for project classrooms. Early Childhood Education (ECE) funds provided aides and materials for project primary grade classrooms.

Comprehensive Employment Training Act (CETA) funds for the county paid the salary of one full-time project aide.

The District paid the salaries of seventeen project teachers and three full-time project aides as well as one-fourth of the project resource teacher's salary. In addition, the District paid all expenses for four bilingual summer school classes.

CLASSROOM INFORMATION

Impact Study Samples

This description is based on discussions with program staff and on observation in one of the project's four second-grade classrooms, one of its three third-grade classrooms, and one of its four fourth-grade classrooms.

Instructional Strategies for Grade 2

Major Features

- There is a high teacher-pupil ratio with three or four adults working with twenty-six students during a typical morning of instruction.

- All lessons are carefully paced with students changing to a different activity every ten to fifteen minutes.
- The teacher and aide use fast-moving games and drills to keep students' attention focused on specific learning tasks. Typically, each student is given several chances to perform a task or to answer questions during one fifteen-minute lesson.
- In addition to the activities described in the following sections, for about 3 1/2 hours each week, all students participate in sharing, games, skits, and stories presented in both English and Spanish. During these activities, the teacher encourages students to use their second language and introduces relevant vocabulary words on an as-needed basis.

English Language Instruction for Native-English Speakers

After informal testing and observation, the teacher divided the English-dominant students in his classroom into high-, medium-, and low-ability groups. These groups work with the classroom teacher, a Reading specialist, and classroom aides on phonics, Reading comprehension, capitalization, punctuation, creative writing, and nonfiction writing activities. During the 3 1/2 hours a week spent on these activities, students rotate through learning stations every ten to fifteen minutes. At these stations they use Harper & Row readers, library books, the Bill Martin Taped Reading Series, and the Bowmar Reading Series. Included with these series are vocabulary flash cards, laminated skill papers, and taped stories which play at the students' listening posts.

English Language Instruction for Native-Spanish Speakers

Through observation of student performance, the teacher selected three bilingual and three Spanish-dominant students to spend 2 1/2 hours a week on such English as a Second Language activities as following directions given in English, matching pictures with written English words, and repeating new English vocabulary words alone and in groups. Major instructional resources for these activities include the Miami Linguistic

- All lessons are carefully paced with students changing to a different activity every ten to fifteen minutes.
- The teacher and aide use fast-moving games and drills to keep students' attention focused on specific learning tasks. Typically, each student is given several chances to perform a task or to answer questions during one fifteen-minute lesson.
- In addition to the activities described in the following sections, for about 3 1/2 hours each week, all students participate in sharing, games, skits, and stories presented in both English and Spanish. During these activities, the teacher encourages students to use their second language and introduces relevant vocabulary words on an as-needed basis.

English Language Instruction for Native-English Speakers

After informal testing and observation, the teacher divided the English-dominant students in his classroom into high-, medium-, and low-ability groups. These groups work with the classroom teacher, a reading specialist, and classroom aides on phonics, Reading comprehension, capitalization, punctuation, creative writing, and nonfiction writing activities. During the 3 1/2 hours a week spent on these activities, students rotate through learning stations every ten to fifteen minutes. At these stations they use Harper Rowe readers, library books, the Bill Martin Taped Reading Series, and the Bomar Reading Series. Included with these series are vocabulary flash cards, laminated skill papers, and taped stories which play at the students' listening posts.

English Language Instruction for Native-Spanish Speakers

Through observation of student performance, the teacher selected three bilingual and three Spanish-dominant students to spend 2 1/2 hours a week on such English as a Second Language activities as following directions given in English, matching pictures with written English words, and repeating new English vocabulary words alone and in groups. Major instructional resources for these activities include the Miami Linguistic series, CORE oral language materials, and Peabody kits. The classroom teacher and one classroom aide supervise these activities and permit Spanish to be spoken as needed.

Spanish Language Instruction for Native-Spanish Speakers

The Spanish resource teacher, the classroom aide, and the classroom teacher work on a rotating basis with seven students who are able to read Spanish. For about 1 1/2 hours a week they listen to students read from Santillana materials, supervise their work in accompanying workbooks, and help them perform vocabulary and phonics drills using Spanish-language flash cards. Students work independently on Reading and writing assignments during the remaining two hours of Spanish instruction. During this time they might complete assignments made in their group and then listen to taped, Spanish-language fables and fairy tales.

Spanish Language Instruction for Native-English Speakers

The majority of the class spends 2 1/2 hours a week working with the teacher and the aide on oral Spanish as a Second Language activities. During this time students follow simple directions, play games, and recite in Spanish the names of parts of the body and of objects located in the classroom. They perform pattern drills as well as sentence repetition and vocabulary drills. During Spanish as a Second Language instruction, students use only Spanish.

Mathematics Instruction

Mathematics instruction is highly individualized, based on Modern School Mathematics Structure and Use, and taught by the classroom teacher with reinforcement from an English-speaking Mathematics resource teacher. Students spend about seven hours a week on addition, subtraction, multiplication, division, and standard and nonstandard measurement activities. To help his students recognize and measure different shapes, the teacher has posted classroom displays showing triangles, squares, and open and closed circles. Also on display in the spring were papers done by the students entitled "Mis Manos Miden" ("My Hands Measure").

Cultural Component

Once or twice a week for a total of sixty minutes a week, the entire class, under the direction of the classroom teacher, engages in cultural awareness activities cntered around Social Studies units on Asian, Native American, black, and Mexican studies. As a part of these units, students may cook Chinese food, soul food, or Mexican food and celebrate holidays such as Chinese New Year, Cinco de Mayo, or Martin Luther King's birthday.

Instructional Strategies for Grade 3

Major Features

- Lessons emphasize the use of manipulative objects. Students arrange parquet blocks, work with Cuisenaire rods, complete puzzles, play board games, measure ingredients for cooking, and create their own crepe-paper flowers for use as classroom decorations.
- Five second-grade students were also assigned to this third-grade classroom. These second-grade students participated in all third-grade activities.

English Language Instruction for Native-English Speakers

The teacher has used standardized test results and informal observation techniques to form two low-, one medium-, and three high-ability, English-language Reading groups. For about two hours each week, these groups work on Reading comprehension, phonics, and writing activities under the supervision of the teacher or the classroom aide. During this time, they might read and answer questions about stories in their Harper & Row series readers, classify pictures into long and short vowel groups, or pin clothespins on pictures representing compound words.

In addition to this two-hours-a-week group Reading instruction, all students work independently on other English activities.

The more advanced groups spend one hour a week working at their seats or in the library on workbooks, creative writing, or research assignments.

Students in the lower groups do fewer independent writing assignments and therefore spend closer to thirty minutes a week working independently on board games or worksheets designed to help them identify short and long vowels and to use prefixes, compound words, and contractions.

Once a week for about forty minutes all students work with Patterns for Language (American Book Company). They might use this book to set up role-playing situations, to discuss poems read to them by the teacher, or to perform writing exercises demonstrating the proper use of quotations and sequencing techniques.

English Language Instruction for Native-Spanish Speakers

Four Spanish-dominant students spend about seventy minutes a week working with the classroom teacher and the aide on oral English activities. They use CORE English materials (Ginn & Co.) and consortium-developed charts to cue repetition and pattern drills. During a typical English as a Second Language lesson, students might discuss what is happening in a picture the teacher is holding up, practice using such patterns as "I went to the _______(store, movies, city)" or describe what they did with their family over the previous weekend. The students also do simple writing assignments and participate in the Patterns for Language activities described in the previous section. During all English as a Second Language activities, Spanish is used only if absolutely necessary.

Spanish Language Instruction for Native-Spanish Speakers

The same students who spend seventy minutes a week on English as a Second Language activities work about 2 1/2 hours a week, under the supervision of the teacher and the aide, on Reading Comprehension phonics, and writing activities in Spanish. The Spanish Reading lessons are based on Santillana series readers and their accompanying workbooks. Phonics lessons on letters of the alphabet, initial sounds, and dividing words into syllables are based on lessons in La Primera Fonetica (National Testbook Company). The teacher and the aide also read to this group from simple poetry, riddle, and fairy tale books. A favorite series is the Monster Books written in Spanish and published by Bowman Company. The students also make use of the Spanish-language fables and legends circulated by the consortium media center.

Spanish Language Instruction for Native-English Speakers

The entire class spends about 1 1/2 hours a week on Spanish as a Second Language activities such as sentence completion drills, flash card vocabulary drills, and writing complete sentences in Spanish. During this time, the native-Spanish speaking students in the class model difficult activities for the English-dominant students. The teacher uses Peabody Kits to cue repetition and assigns students to work at Language Masters on a rotating basis. She posts words like *izquierda* (left), *derecha* (right), and *ayudante* (helper) on the classroom walls to help students remember key concepts. Classroom games in Spanish include playing "Simon Dice" ("Simon Says"), drawing pictures of what the teacher is saying in Spanish, or seeing which classroom team can use the most Spanish words in complete sentences. During Spanish-language instruction, English is used only if absolutely necessary.

Mathematics Instruction

The teacher has used standardized test results and informal observation techniques to place students in three groups for Mathematics instruction. During the first ten to fifteen minutes of each Mathematics period, the teacher often presents an introductory lesson on the skills to be covered that day by one or all of the groups. Students in the high- and medium-ability groups then spend about thirty-five minutes on addition, subtraction, multiplication, division, fractions, measurement, and simple geometry problems. Students in the lower group also spend thirty-five minutes a day on Mathematics instruction, but they cover only addition, subtraction, and simple geometry concepts. Most of the instructional time is spent at one of three Mathematics learning stations. Students rotate through these stations where they might work open-ended Mathematics problems using Wirtz's *Individualized Computation*; read and work problems in *Modern Mathematics* (Houghton Mifflin); complete computation worksheets in the *Individualized Mathematics Starter and Practice Kit* (Random House) or use Cuisenaire rods, parquet blocks, and board games to reinforce basic concepts. Mathematics instruction is conducted primarily in English.

Cultural Component

Approximately three times a week for a total of sixty minutes a week the teacher and the aide plan informal cultural awareness activities. They might have students play African mathematical games, learn Mexican dances, do Indian sandpainting, discuss the difference between a teepee and a wigwam, cook tortillas, or read simple books about and then discuss the lives of famous persons such as Martin Luther King or Harriet Tubman. Typically, cultural awareness lessons involve the whole class and are conducted in English.

Instructional Strategies for Grade 4

Special Features

- Oral drills are used frequently in English, Spanish, and Mathematics instruction. Students recite new vocabulary words, pattern drills, and responses to Mathematics problems.
- Students often work independently in the library, in the Mathematics laboratory, and in the classroom at listening posts or in small discussion groups.
- There is a high adult/student ratio. Two aides help with English and Spanish Language Arts instruction. A Title VII resource teacher and a Title VII aide take students out for short sessions on Spanish Reading. A Title I resource teacher and a Title I tutor work with students who need help in English Reading and Mathematics and Reading teachers based in the school's Reading and Mathematics laboratories provide resource help on a regular basis.

English Language Instruction for Native-English Speakers

Using informal observation and standardized test scores. the teacher has placed her English-dominant students in four separate groups. The high- and moderate-ability level groups spend four hours a week on writing skills and six hours a week on phonics, Reading comprehension, and library skills. The lowest group spends three hours a week on writing skills and seven hours a week on phonics, Reading comprehension, and library skills. Instruction in all these areas takes place at learning centers through which students rotate at least twice a week. At these learning stations are self-pacing Pilot Library tapes, filmstrips, and comprehension questions; SARI skills program assignments made in the Reading laboratory; Reading and comprehension exercises from Harper & Row's Trade Winds series: or a locally developed, individualized spelling program where students do tactile, oral, and written exercises with a limited number of new words. The classroom teacher, the classroom aide, two Reading resource teachers, and a Reading tutor share responsibility for the various Reading groups. The higher-ability groups work alone about half the time while the lower-ability groups spend closer to a third of their time on independent assignments. The entire class also spends about two hours a week on sharing and story-telling activities in English.

English Language Instruction for Native-Spanish Speakers

Six students receive instruction in English as a Second Language. Three of these students work with the classroom aide for about two hours a week on an oral vocabulary and pronunciation drills. They memorize nonphonetic words from the Dolch Word List; recite beginning sounds, diagraphs, and blends using exercises in the Phonics We Use kit; and learn the vocabulary for foods and the family using the CORE program materials. The remaining three students in the English as a Second Language group join more advanced students in another classroom for beginning Reading activities in Harper Row textbooks and in the Phonics We Use materials. During English instruction, these students rarely use Spanish.

Spanish Language Instruction for Native-Spanish Speakers

The same six students who receive two hours of English as a Second Language instruction each week spend six hours a week on phonics, Reading comprehension, and library work and four hours a week working in Spanish on grammar, spelling, and writing skills. The classroom teacher and one aide supervise these activities during about 6 1/2 of the ten hours listed above. Students work on their own for the remainder of this time. Spanish Reading materials are those used by most consortium schools: Santillana series readers and workbooks, SFNDA supplementary materials, and short fables like "El Zorro y el cuervo" presented in written form and on cassette tapes by the consortium media center. Using Spanish dictionaries, students also learn to recognize guide words, to read definitions of simple words, and to alphabetize.

Spanish Language Instruction for Native English Speakers

There are three groups of Spanish as a Second Language students in this classroom. Four students who have been in the bilingual project since kindergarten spend about one hour a week on Spanish Reading and 1 1/2 hours a week on grammar, punctuation, and spelling activities in Spanish.

Five students who hear Spanish at home but who are new to the program this year spend about 2 1/2 hours a week on Reading comprehension and phonics activities. Both of the above groups use the Santillana series materials and SENDA tapes, and spend an additional thirty minutes a week on storytelling, oral vocabulary, and sentence pattern drills in Spanish. The cues for these drills include picture flash cards and pronunciation modeling by the teacher or the classroom aide.

Fourteen students who are not exposed to Spanish at home spend about two hours a week on vocabulary repetition and sentence pattern drills. They also use a locally developed spelling kit that directs them to memorize words that appear in the Santillana Reading series and to use these words in complete sentences. When teaching beginning Spanish vocabulary, the teacher relies heavily on a second-language guide developed by the consortium in the summer of 1975. This guide suggests the early introduction of family and food nouns and the use of these nouns in sentences with simple verbs, e.g., take the apple, eat the banana, help your mother.

Mathematics Instruction

For Mathematics instruction, students are grouped by language dominance and by ability. All students use Houghton Mifflin's Modern School Mathematics in its English- or Spanish-language edition and spend about seven hours a week on addition, subtraction, multiplication, division, fractions, measurement, and algebra problems. Again, for Mathematics instruction, the students rotate through learning centers. Here, they might play computation games and listen to tapes that accompany the PRIME series, work with tangrams and geoboards, listen to the teacher review a new concept that several students are having trouble with or work on skill assignments they contracted with the Mathematics resource teacher.

Cultural Component

The classroom teacher estimates she spends an average of 1 1/2 hours a week on cultural awareness activities. During Black History Week, students discussed the contributions of famous black Americans. At other times during the year, they cooked won tons, prepared tomales and passed them out at the school's Cinco de Mayo fair; sang such songs as "De Colores" and "Los Elefantes" while their teacher accompanied them on the guitar; and discussed consortium-prepared units on the founding of Mexico and the origin of "God's Eyes".

Parent and Community Involvement

Project teachers interviewed indicated that from one to four times a year they visit or telephone all project parents to discuss each student's progress. On the average, they receive help with classroom parties from about two parents every two months.

At least one teacher from each project school attends monthly project advisory committee meetings. These meetings are organized by two school community workers who help set the meeting agenda, call parents to remind them of meeting dates and times, and often provide transportation to and from meeting sites. The school community workers' other functions include notifying parents if their children are having problems at school; meeting with all project families to help with translation, counseling, or immigration problems; and helping project teachers plan festivities including Cinco de Mayo celebrations.

PROJECT 29

PROJECT INFORMATION

Project Context and Target Population

The 1972-73 school year was the first year of Project 29 in the District. The project serves a multi-ethnic suburban community in a large metropolitan area. National groups within the Spanish-speaking community included Cubans, Colombians, Dominicans, Puerto Ricans, etc. Other ethnic groups were black, Asian, and white non-Hispanic. The two school principals stated that most of their students spoke two languages, English and Spanish or another language. At the third school, the students' preferred language outside the classroom was English; however, one-third of the community was considered bilingual in English and another language (Spanish, Japanese, Chinese, or Pilipino). The housing pattern in two school communities was primarily mixed single units with some multiple-unit dwellings; in the third community, primarily private homes with one large housing development. The occupational range was also mixed, from professionals to laborers. Therefore, the average gross annual income of families varied tremendously. There was also a fair amount of mobility and transition in the student population, from a low of 10% at one school to a high of 40% at another. Such transiency was due to a number of factors: (1) an increase in the student population caused by a change in ethnic make-up of the community, (2) a loss of students because of transfers to other sections of the city, and (3) a migrant population who eventually return.

There are twenty-three schools in the District: twenty elementary schools, one intermediate school, and two junior high schools. Seven public elementary schools and the intermediate school participated in the project. A private elementary school was also involved in the project. There were 702 students in kindergarten through grade 8 participating in the project during the 1975-76 school year.

There were numerous ways in which the state and local district had supported the bilingual project: through technical assistance in proposal writing, by providing consultants for inservice training, through general dissemination of information relevant to bilingual education issues, and through teacher workshops and special resources such as library materials, textbooks, and audiovisual equipment.

Program information was disseminated and publicized in a variety of ways utilizing several communications media, such as the following:

- A bi-monthly District newsletter which was written in both English and Spanish
- Videotape recordings of various aspects of the program
- Presentations made for other districts in the city to demonstrate materials and techniques developed in the program.

Goals and Objectives

The project has established several objectives for students of limited English-speaking ability and for English-dominant students. It is the long-range project objective that a majority of participants will demonstrate the ability to understand, speak, read, and write at their appropriate grade level in both their native and second languages as measured by the city's Board of Education language assessment test. Major emphasis is placed on cognitive skills for these content areas: Spanish Reading, English Reading, English as a Second Language, and Mathematics. Staff development plays an important role in the attainment of this goal. Fifty-nine Bilingual Professional Assistants (BPA'a) and teachers were enrolled in graduate course work at a local university in June 1976. During the winter and spring quarters, fifteen to twenty staff members also took course work in the program. This program offers a master's degree in Bilingual Education. Ten Educational Assistants (EA's) are also pursuing the B.S. degree in Bilingual Education at the university. Previously they had been part of the District's career program. Another component of the project is parent involvement through the Bilingual Advisory Council, which consists of parents, teachers, and the Project Director. There were twelve parents of Spanish-dominant students who were considered official voting members on the Council. In addition, five teachers and two parents of English-dominant students were ex-officio members. The Council holds its meetings during the year at each of the project schools.

Project Staff

Twenty-one classroom teachers and twenty-six Bilingual Professional Assistants and Educational Assistants supported the project during the 1975-76 school year. Three teachers and four aides were English/Greek and English/Italian bilinguals. The majority of the personnel was Hispanic. However, ethnic diversity was also reflected in staff as well as student population. Four teachers and assisants were Italian, two were Greek. There was one Filipino teacher, two black teachers, and five white non-Hispanic teachers. Most of the teaching staff had been with the project for only one year.

The project staff consisted of the Project Director, a teacher-trainer, and a part-time secretary. They varied ethnically -- Hispanic, Italian, and white non-Hispanic. The secretary had been with the project four years; the Project Director and teacher-trainer, two years or less.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	11	11
Total number of questionnaires received	10	8
Highest earned college degree:		
No degree		
Degree or diploma based on less than 4 years of work		5
B.A. or B.S.	4	1
Teaching credential only		1
M.A. or higher	6	1
No response		
Type of state teaching credential held:		
Non-credentialed		3
Temporary, provisional, partial-fulfillment, or emergency		3
Regular credential	5	
Bilingual-bicultural teaching credential	5	1
No response		1
Years of full-time teaching experience:		
Less than 1 year	1	1
1 year		
2 years	1	2
3 years		1
4 years		1
5-9 years	2	2
10-19 years	4	
20-29 years	2	1
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	4	1
1 year	1	
2 years		4
3 years	1	
4 years	2	2
5 years		
More than 5 years	1	1
No response	1	
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)	1	2
6-15 quarter units (4-10 semester hours)	1	
16-30 quarter units (11-20 semester hours)		1
More than 30 quarter units (more than 20 semester hrs.)	3	3
No college training in bilingual-bicultural	4	2
No response	1	
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days	4	4
15-30 days	1	1
More than 30 days	2	3
None	2	
No response	1	

SOURCES OF PROJECT FUNDING

Funds specifically designated for and administered by the Bilingual Project:

Title VII	$ 312,400	
Other Federal and State	-0-	
Other	-0-	
TOTAL	$ 312,400	
• Per pupil		$ 522.41

Funds in addition to the above which are designated for bilingual project schools:

School A

Federal and State	$ 12,000	
Other	-0-	
TOTAL	$ 12,000	
• Per pupil		$ 11.09
• Total per-pupil additional funds for bilingual project participants:		$ 533.50

School B

Federal and State	$ 18,000	
Other	-0-	
TOTAL	$ 18,000	
• Per pupil		$ 10.40
• Total per-pupil additional funds for bilingual project participants:		$ 532.81

School C

Federal and State	$ 95,000	
Other	-0-	
TOTAL	$ 95,000	
• Per pupil		$ 116.85
• Total per-pupil additional funds for bilingual project participants:		$ 639.26

CLASSROOM INFORMATION

Impact Study Samples

Eleven classrooms were randomly selected from grades 2, 3, and 4 for the Impact Study. Two target bilingual classrooms and two comparison classrooms were selected from the third and fourth grades at the three schools that had participated in the project from its inception. The exception was the second grade where two bilingual classrooms and one comparison classroom were selected. For the intensive observation, six classrooms were randomly chosen. Two third-grade bilingual classes and one fourth grade class were observed. Three comparison classes (third and fourth grade) had been selected; however, complete observations were only conducted for two classrooms since one third grade teacher was absent for the entire period of on-site visitation.

Instructional Strategies for Grade 3, Schools A and B

Two bilingual third-grade classrooms were observed and documented, each at a different school. The School A classroom had thirty-one students and School B, twenty-eight students. In the School A classroom there were two aides--the Educational Aide and the Bilingual Professional Assistant--and the classroom teacher. The third-grade classroom at School B had undergone several changes since the beginning of the second semester. At the time of the on-site visit, there was only one aide, the bilingual professional assistant, whereas previously there had been two. The description for that classroom documents the educational program for the entire year.

Major Features

School A

- All students were tested for language dominance in English and Spanish.
- There was small-group instruction in all subject areas.
- Two paraprofessionals assisted the classroom teacher, each responsible for one group in each of the major subject areas.

- The teaching staff was bilingual. The teacher was white non-Hispanic; the paraprofessionals were Hispanic.
- All students participated in the Spanish as a Second Language program. There was a highly structured ESL/SSL program.
- Hispanic culture was integrated into the regular Social Studies component.
- There was strong parental involvement.

School B

- All students were tested for language dominance in English and Spanish.
- Instruction was given in small groups in most subject areas.
- One paraprofessional assisted the classroom teacher during the second part of the year. The paraprofessional was responsible for the Spanish language component and ESL.
- The teacher was English monolingual and white non-Hispanic. The paraprofessional was bilingual and Hispanic.
- Except for four students, all students participated in the Spanish Language Arts program.

English Language Instruction for Native-English and Native-Spanish Speakers

At School A, groups were determined at the beginning of the school year according to language dominance and ability level. Language dominance was assessed by a district-developed instrument. Ability levels in English were evaluated with a project-developed instrument, the Harris Sample Word List, the Stanford Diagnostic Test, and the teacher's own assessment of the student's reading comprehension levels. Based on the results of these, students were assigned to five groups. However, two of the groups (each consisting of two members) were pulled together for instruction. These two groups consisted of students who were on pre-primer level and were all Spanish-dominant except for one member who was balanced bilingual. The bilingual professional assistant was responsible for the instruction of these four students. The educational assistant taught the middle group (seven students) during the English Language Arts period, and the classroom teacher was in charge of two groups--the middle and the top (ten students in each). Groups remained fairly stable, and the teaching personnel did not exchange groups.

Of the students taught by the educational assistant, three were balanced bilingual, three were Spanish dominant, and one was English-dominant. Of the total number of students taught by the classroom teacher, thirteen were balanced bilingual, six were English dominant, and one was Spanish dominant. Instruction was primarily in English, but the aides and students conversed in Spanish. Reading instruction for the two groups taught by the classroom teacher consisted of the Distar Reading Program which includes silent and oral reading, phonics and reading comprehension, and oral language (choral reading and sharing). Normally, the teacher instructs one group in Reading, while the other Reading group is working independently in the Language Arts area which involves capitalization, punctuation, spelling, grammar, and creative writing. Halfway through the period, groups are rotated. A total of 3 3/4 hours are spent each week on direct Reading instruction for each group with five hours assigned for independent work activity.

The group that worked with the educational assistant received the same Reading and Language Arts instruction; however, the time distribution varied. These students receive the major portion of 8 3/4 hours a week in direct instruction. A small percentage of time was allocated to independent work activity, but this was also conducted under the educational assistant's supervision. The group comprised of four students was given direct instruction by the bilingual professional aide for 8 3/4 hours each week. Instruction was geared to language ability level. These students also received ESL instruction. Specifically this instruction entailed sentence pattern, sentence completion and pronunciation drills, vocabulary building exercises, structured dialogues, and controlled conversation exercises. In other words, oral-aural methodology was implemented in the instruction of English as a Second Language. A total of 8 3/4 hours were allotted each week for the combined ESL and English Language Arts instruction for these students.

All students received a daily lesson (twenty-five minutes) in handwriting skills. Special areas, such as plays or poetry sessions, were considered separately. During one month, the entire class worked on a play that was performed for the students' parents. They spent one to two hours a day on rehearsal during that month. Poetry classes were held twice a month, (one hour each session).

The evaluation of the students' work in the English Language Arts component consisted of weekly spelling test and the teacher's observation of the students' performance in Reading and Language Arts as well as their improvement on handwriting assignments.

The following published materials were utilized in classroom instruction by the teaching personnel: McCall-Harby series; McCall-Crabbs series; Using the Context (Barnell Loft); Individualized Phonics, Using Our Language (Grade 3); Instructor magazine; SRA Listening and Skill Builder; The Magic of English Workbook (Harper & Row); Distar Reading series (Level 2 & 3); Bank Street Reading series (supplementary); and the SRA Independent Reading Kits.

Other instructional aids included exercise sheets, charts, educational games, flash cards, and manipulative materials. The teaching staff also used a wide variety of audiovisual material including tapes, records, filmstrips, and 16mm films; an overhead projector; and library books.

At the start of the school year, the School B students were grouped according to reading ability. Three groups received instruction using Distar and SRA materials. A fourth group was given ESL instruction. Group 1 consisted of eight students (one Spanish-dominant, four English-dominant and three balanced bilingual). Group 2 contained eight average and advanced learners (four English-dominant and four balanced bilingual). Group 3 had ten members (two Spanish-dominant, five English-dominant, and three balanced bilingual) of average and below average ability. The two students who comprised the ESL group were Spanish-dominant. Instruction for this subject area was primarily in English; however, the teacher and aides allowed the students to speak freely in Spanish. Groups remained intact until the second semester.

With the exception of six students, (two ESL students and four extremely low achievers), all the other students were working on the SRA program. Three groups were receiving Distar instruction. Both programs covered a number of content skills: capitalization, punctuation, spelling, and grammar. These were taught in addition to the reading skills--oral/silent reading, phonics, and reading comprehension--for 7 1/4 hours with independent activity for 2 1/2 hours each week. The fourth group, ESL students, received instruction that was essentially eclectic in nature. They were taught in both languages, and lessons consisted of pronunciation drills, vocabulary building exercises, and phonics for 3 1/3 hours each week. The bilingual professional assistant was responsible for this group's instruction.

The loss of the educational aide at the beginning of the school year disrupted the established group pattern, except for the ESL group which continued intact. An individualized instructional pattern emerged with some small-group instruction. The same content areas were covered; 2 1/2 hours were allotted for instruction in capitalization, punctuation, spelling, and grammar and 3 3/4 hours were assigned to the reading skill areas. The oral language component was taught infrequently during the month. Approximately two hours were devoted each month to one of the following subjects: poetry, skits, storytelling, choral reading, and/or sharing.

The Stanford Achievement Test was used for grouping. Other forms of evaluation were implemented: (1) a weekly spelling test and (2) ongoing observation and assessment of the student's progress in English Language Arts and Reading. A test developed by the local board of education was also administered to the students to determine their language proficiency in English.

Instructional materials for English Language Arts consisted of the Distar Reading (II, III) and Language Series; the SRA II Kit; the Scott Foresman Basal Reading Series for the advanced readers; and teacher-prepared lessons. Supplementary aids included exercise sheets, charts, library books, and educational games. The teacher also used the following audiovisual materials: tapes, records, and filmstrips.

Spanish Language Instruction for Native-English and Native-Spanish Speakers

School A. A district-developed test determined the language dominance of students and established the grouping pattern for Spanish Language Arts. There were three groups of eight, nine, and fourteen students respectively. Six students in Group 1 were English-dominant, and two balanced bilingual. This group received SSL or instruction for Spanish as a Second Language from the educational aide. Group 2 had nine students: four Spanish-dominant; one English-dominant; and four balanced bilingual. This group was reading below grade level in Spanish and received instruction from the classroom teacher. The third group consisted of eleven balanced bilingual and three Spanish-dominant students. This group was functioning at grade level and was taught by the bilingual professional assistant. The groups remained stable throughout the year except for a few changes based on the student's ability.

The content in Spanish Language Arts for Groups 2 and 3 was similar. These subject areas were covered during the 3 1/3 hours each week for the written and reading components: capitalization, punctuation, spelling, grammar, oral/silent reading, phonics, and reading comprehension. The time allocation included independent work activity as well as direct instruction. In oral language, thirty minutes were assigned each week for poetry and skits to all groups. For Group 1, the SSL group, instructional time was exactly the same; however, the content varied. Aural-oral techniques similar to those implemented for ESL were also utilized for the instruction of Spanish as a Second Language: pronunciation, sentence pattern, and sentence completion drills; vocabulary building and controlled conversation exercises; and structured dialogues. The written and reading components included capitalization, punctuation, spelling, grammar, and phonics.

The assessment of students' progress was completed twice a year with a district-developed test. For Group 3 the instructor also administered bimonthly tests. The basic test for Group 1 was Nuestra Fonetica y Asi Escribimos; for Group 2 Lee y Trabaja; and for Group 3, La Cuidad, Otros Amigos y Otras Culturas and Libro de Lectura y Actividades. The teaching staff in this classroom supplemented instruction with a number of aids: workbooks, exercise sheets, manipulative materials, records, cassette tapes, filmstrips, and library books.

School B. Grouping at the beginning of the school year was based on language dominance. Later in the year regrouping occurred based on ability level. During the first semester there were three groups that received instruction. One group consisted of nine English-dominant students. The other two groups with six students each were mixed in language dominance. The teacher and two aides were each responsible for a group. During the second semester, one group was composed of eight students (three Spanish-dominant, two English-dominant, and three balanced bilingual) who were of average ability. The second group had nine members (two Spanish-dominant, three English-dominant, and four balanced bilingual) and were considered the advanced group. The bilingual professional aide was in charge of the entire Spanish Language Arts program, since the teacher was not fluent in Spanish. Typically, groups were instructed during different periods in the day's schedule.

For example, Group 1 was taught bilingually during the morning and was given instruction in spelling and grammar (mostly oral work), in addition to oral/silent reading, reading comprehension, and vocabulary development for 3 3/4 hours each week. The oral language component consisted of poetry, storytelling, and sharing and took place at least once a week for twenty minutes. The instructional materials for this group were teacher-developed. Although, the aide did occasionally utilize Ningun Lugar Para Jugar (Wonder Books) for lessons, the students' work was largely oral in nature. During the second half of the morning, Group 2 received instruction primarily in Spanish in the following content areas: capitalization, punctuation, spelling, grammar, and creative writing. The reading skills that were covered included oral/silent reading, phonics, reading comprehension, and vocabulary development. Three hours were assigned each week for the Reading component, plus fifty minutes each week for an oral language program (poetry, storytelling, and sharing). They used Mundo Nuevo 1^{o} (ANAYA) and Trabajo y Aprendo (Santillana). The third group was taught during the afternoon period and was instructed primarily in English with some Spanish. This group was given instruction in Spanish as a Second Language. For three hours each week this involved pronunciation drills and vocabulary building exercises. The oral component, which consisted of the same content areas that have been previously mentioned, also was allotted an additional fifty minutes each week. Instructional materials were developed by the aide. She had a number of resource books at her disposal. Four students did not participate in the Spanish Language Arts program. They received additional instruction in Mathematics. There was no formal evaluation of the student's progress, other than the language assessment test which was administered twice a year for diagnostic purposes and the aide's observation and subjective assessment of the students' work. In addition to the instructional materials already mentioned, the bilingual professional aide used charts, tapes, records, filmstrips, and library books, to supplement the program.

Mathematics Instruction

School A. Three groups were established based on the results of a diagnostic test that is administered twice a year. Group 1 consisted of eight slow students (three Spanish-dominant and five balanced bilingual) who were taught by the bilingual professional assistant. Group 2 which was instructed by the educational aide had five students (two Spanish-dominant, two English-dominant, and one balanced bilingual) who were at grade level. The classroom teacher instructed Group 3, eighteen students who are at grade level and above. In the latter group, there were eleven balanced bilingual, five English-dominant, and two Spanish-dominant students. Both languages were used in the instruction of all three groups; however, more Spanish was used with Group 1 and more English was spoken with Group 3. The groups remained stable throughout the school year. That is, little regrouping had occurred, but, when it did occur, it was determined by the students' ability.

The content for the three groups consisted of the following: addition, subtraction, multiplication, division, fractions, and measurement. New math and a traditional method were utilized as instructional approaches. Approximately 1 2/3 hours were spent each week by all groups in direct instruction with an additional 2 1/2 hours allotted for independent work activity.

Besides the diagnostic test that was administered twice a year, a test was administered twice a month to measure students' progress. The following materials structured the instructional content: Exploring Elementary Mathematics, Modern School Mathematics, Lenres and the McCormick Mothers Math Skills Kit. Other instructional materials were workbooks, exercise sheets, charts, educational games, flash cards, library books, and manipulative aids. Filmstrips dealing with mathematical concepts were used occasionally in the classroom.

School B. A diagnostic instrument was administered at the start of the school year. As a result, students were assigned to three groups based on ability level. In other words, one group consisted of advanced and average students (six English-dominant and six balanced bilingual); a second group of average and below-average students (three English-dominant, two balanced bilingual, and two Spanish-dominant); and a third group, of low achievers (four English-dominant and two balanced bilingual). During the second semester, Group 1 was kept intact while Group 2 and 3 were combined. These groups were taught by the classroom teacher primarily in English, although Spanish was spoken freely by students. There was a newly formed third group during the second semester that was taught by the bilingual professional aide and included low achievers from the previous Groups 2 and 3. There were four students (English-dominant) in this group and they received instruction in English. All students were given instruction in the following content areas: addition, subtraction, multiplication, division, fractions, measurement, and elementary geometry. The new math was integrated with a more traditional approach for instruction. Each week Groups 1 and 2 were assigned 2 1/4 hours of direct instruction with 1 1/2 hours in independent work. Group 3 spent the entire period (3 3/4 hours) in direct instruction. The classroom teacher and aide worked with a number of instructional textbooks: Individualized Math Kit (McCormick Mothers Publishing Co.), Duplication Masters (Milliken, Merrill, Addison-Wesley), Meters, Liters, and Grams and Matematicas Modernas (Cultural). Besides the basic textbook and workbook, other supplementary materials included exercise sheets, educational games, manipulative aids, tapes, records, and library books. The students' achievement was assessed each week with the administration of a teacher-developed test. No other instrument was used for evaluation.

Cultural Component

School A. Hispanic culture, dealing specifically with the Caribbean, Central American, and South American communities, was integrated with the teaching of Social Studies. This took place twice a week for a total of 1 3/4 hours.

The teacher tapped community resources since parents provided the class with recipes, folk costumes, etc. The school/community resource teacher also instructed the students on the music and dances typical of many South American countries. The instructional content also included cooking, geography, and material about special holiday festivities. English and Spanish were utilized for the instruction of the cultural component.

School B. There were units developed for the instruction of Hispanic culture as part of the regular Social Studies program. This was taught to the entire class. Both languages were used, since the bilingual professional aide was involved in the teaching of these cultural units; however, instruction was primarily in English. Certain activities or themes were incorporated into these units; Art, cooking, games, Geography, History, holidays, Music, and famous personalities. Approximately 1 1/2 hours a week were devoted to Social Studies.

Instructional Strategies for Grade 4

Major Features

- All students are tested for language dominance in English and Spanish.
- Instruction is given in small groups in all areas.
- Two paraprofessionals assist the classroom teacher, each responsible for one group in each of the major subject areas.
- The teaching staff is bilingual Hispanic.
- The ESL/SSL components are highly structured.

- There is continuous assessment of the students' progress.
- Once a month, a whole day is devoted to a particular cultural event, such as Pan American Day or Columbus Day; for that day, all instruction revolves around this cultural theme--English, Spanish, Mathematics, Social Studies, etc. Instruction is in Spanish, if appropriate.

English Language Instruction for Native-English and Native-Spanish Speakers

Twenty-seven students were assigned to four groups based on their performance on the language assessment test and reading level. In Group 1 six Spanish-dominant students who were performing below grade level received instruction in Spanish Distar from the educational aide. Group 2 consisting of eight average students (two Spanish-dominant, four English-dominant, and two balanced bilingual) was taught by the bilingual professional assistant. These students were working on Distar 2^1-2^2. Six students (four English-dominant and two balanced bilingual) in Group 3 received instruction in Distar 3^1-3^2, and, seven students (six English-dominant, and one balanced bilingual) were performing at grade level (4^1-4^2) with a basal textbook. The latter two groups were taught by the classroom teacher. Groups remained fairly stable throughout the school year. Students were rarely regrouped, but if a student was changed it was determined basically on the student's need. Instruction for this component was conducted in English. Teacher and aides did allow the use of Spanish during the period.

The instructional content for all students included capitalization, punctuation, grammar, and creative writing. Groups 2, 3, and 4 were each allotted 1 1/4 hours of direct instruction while Group 1 was assigned 2 1/2 hours. For independent work in these areas, Groups 2, 3, and 4 were allowed 3 1/4 hours with Group 1 receiving about two hours each week. Spelling and penmanship were taught to the entire class for 1 1/2 hours each week. The Reading component, which included oral/silent reading, phonics, choral reading, and reading comprehension, was taught for 2 1/2 hours each week to Group 1 and 2. Group 3 received 3 1/4 hours of instructional time and Group 4, 1 3/4 hours. Independent work activity for each group was distributed differently: Groups 1 and 2, 2 1/2 hours, Group 3, 1 3/4 hours, and Group 4, 3 1/4 hours.

Besides the Stanford Achievement Test and an informal diagnostic test which was used at the beginning of the school year for grouping students, the classroom teacher also devised other evaluation instruments: a weekly spelling test and a weekly Language Arts tests. The teaching personnel used the following textbooks for instruction: Distar Language Arts I, II, III, More Times and Places (Scott Foresman), Distar Reading I, II, III, SRA, Barnell Loft, and Phonics Book E. Workbooks, exercise sheets, and library books were also utilized in the instruction of this component.

Spanish Language Instruction for Native-English and Native-Spanish Speakers

Based on the results of the district-developed language dominance instrument, students were assigned to three groups. Group 1 was composed of nine English-dominant students who were given SSL instruction by the educational aide. Content for the oral language component of Spanish as a Second Language consisted of pronunciation, sentence pattern, and sentence completion drills; and vocabulary building exercises. The Reading component involved oral reading, phonics, and reading comprehension.

Student textbooks were Mira y Lee (Santillana) and Mi Primera Fonetica. Instruction was given twice a week for 1 2/3 hours and independent work for twenty minutes. The classroom teacher taught beginning Reading to Group 2 (four Spanish-dominant students, five English-dominant students, and one balanced bilingual student). Skills in capitalization, punctuation, spelling, and grammar were taught. Choral reading, oral reading, phonics, and reading comprehension comprised the Reading component. Students in Group 3 (four Spanish-dominant and four balanced bilingual) were given instruction by the bilingual professional aide in the same content area as Group 2 and for the same time period. Two textbooks were used with both groups: Nuestra Lengua - Tercer Curso (ANAYA) and Mundo Nuevo 1[1] (ANAYA). Other classroom materials which were utilized included educational games, tapes, films, and library books. Instruction was in both languages for Group 1 and primarily in Spanish for Groups 2 and 3. Other than the district test, which diagnosed students' language skills in Spanish, there was no formal means of evaluation in this classroom.

Mathematics Instruction

Three groups were given instruction in both languages by the teacher, the educational aide, and the bilingual professional assistant. These groups were determined at the start of the school year by use of a diagnostic test. The low group, which was taught by the educational aide, consisted of four Spanish-dominant students. The bilingual professional aide taught the average-ability group (two Spanish-dominant, four English-dominant, two balanced bilingual students). The top group was instructed by the classroom teacher. There were fifteen students (two Spanish-dominant, ten English-dominant and three balanced bilingual). All groups were evaluated bimonthly for regrouping; however, not more that five students had changed groups since the start of the school year at the time of this interview.

The content of instruction varied for each group. The low group had been given instruction in addition and subtraction; the average group, addition, subtraction and multiplication; and the high group, addition, subtraction, multiplication, division, fractions, and measurement. The instructional approaches combined the new math and traditional Mathematics techniques. Instructional time for the average and high ability groups approximated 4 1/4 hours each week with 1 1/4 hours assigned for independent work activity. The low group spent the entire period or about 5 3/4 hours each week under the educational aide's direction. Weekly tests were administered for the purpose of assessing students' progress. Instructional materials differed among the groups. The basic textbook for the low group was Matematicas Modernas (Publicaciones Cultural) while Elementary Mathematics (Harcourt Brace Jovanovich) was used with the other two groups. Other instructional aids included workbooks, exercise sheets, manipulative aids, and arts and crafts supplies.

Cultural Component

Cultural units were presented as part of the Social Studies curriculum. Typically, these units focused on special holidays, such as Columbus Day, Puerto Rican Discovery Day, Pan American Day, etc., which occurred at least once a month during the school year. It was also customary that the entire day's schedule revolve around the special theme. But during this period the classroom teacher involved the entire class in an activity such as cooking, music, or lessons on History, Geography, and famous persons.

Parent and Community Involvement

Parent participation was high for the third-grade classroom in School A. On field trips that had taken place on a monthly basis, two or three parents had joined the class. Parent-teacher conferences had occurred three times during the year. The classroom teacher had conferred with at least thirty parents. One parent had met weekly with the teacher. In addition, special programs had attracted many of the parents. The class had sponsored three programs: a cooking demonstration, a food and customs program, and a January Program. Fifty parents had attended these special activities, besides the annual open house, which fifteen parents observed. The PTA also held monthly meetings at the school. The classroom teacher mentioned that fifteen parents were members but did not know specifically how many parents attended.

In the third-grade classroom at School B, there had been only twelve parent-teacher conferences during the year. She knew of only two to four parents who attended monthly meetings of the Bilingual Advisory Council and the Parent Association. There were forthcoming activities such as the Pan American Week festivities and a possible luncheon that the teacher hoped would bring more parents to the school.

The fourth-grade teacher had twenty-six parent-teacher conferences since the beginning of the school year. Three of these had occurred through home visits made by the teacher. Although the parents had not attended any of the class parties that had been given, they had donated food items. In addition, one parent had been attending weekly workshops in ESL; and three parents attended monthly meetings of the PTA.

PROJECT 30

PROJECT INFORMATION

Project Context and Target Population

A bilingual education project was started in the District in 1970, but Title VII funding did not commence until 1971. There have been many changes in the structure of the bilingual project since it began. Originally, seven elementary schools were included; then the number dropped to five; later the junior high and high schools were added. Meanwhile, the school district organization was in transition from a kindergarten through grade 6, grades 7 and 8, and grades 9 through 12 structure to the present kindergarten through grade 4, grades 5 through 8, and grades 9 through 12 arrangement.

The District is located in a city with a population of 34,000. Situated in a metropolitan area, the city is made up of several middle-class residential neighborhoods separated by agricultural fields, commercial greenhouses, large industrial plants, and warehouses. There are six public elementary schools in the District, two middle schools, and one high school.

There are four elementary schools, two middle schools, and a high school participating in Project 30. One of the elementary schools is a private parochial school. Thirty-nine classrooms from kindergarten through grade 10 and about 1,090 students are involved. Participation in the bilingual classrooms is on a voluntary basis.

Much of the Spanish-speaking population (about 12% of the total school population in the city) is concentrated in older neighborhoods; but, since the District has an integration policy implemented by busing, no one elementary school has an unusually large Spanish-speaking enrollment. The schools with bilingual classrooms have about 50% to 65% non-Hispanic whites, 30% to 40% students of Mexican descent, and a small percentage of Central and South Americans, Asians, Native Americans, and blacks.

The schools in which the bilingual classrooms operate--no school is entirely bilingual--are mainly English speaking, with about 70% to 75% of the parents being English monolingual, another 20% to 25% English/Spanish bilingual, and about 4% Spanish monolingual. However, the bilingual classrooms within these schools have a much larger percentage of students from Hispanic backgrounds and of bilingual students than do the schools as a whole.

Most wage-earning parents in Project 30 schools are semiskilled workers, skilled workers, or office workers. Incomes are in the $6,000 to $10,000 range, although busing brings in students from diverse income backgrounds to every school. Students of higher socioeconomic status are bused into the lower-income areas.

The turnover of the student population is about 15% to 20% each year.

Goals and/or Objectives

The project's stated goals are to develop students' individual potential and to create bilingual/bicultural citizens through an educational program emphasizing independent learning and individualized teaching. The project hopes to develop the capability to offer instruction in any subject in Spanish as well as English in kindergarten through grade 12. Both English and Spanish monolinguals are to be taught a second language so that all will either develop or maintain fluency in both languages. The program aims to have *instructional* language use individualized and personalized, but at the same time it expects teachers to use Spanish half the time in classroom *management*.

Project Staff

The full-time bilingual staff consists of the thirty-nine teachers (paid by the local school district) and fifty-five part-time aides, some of whom are paid by the state bilingual funds and some by Title VII. All the bilingual classroom teachers have an aide in the room all day, usually one person in the morning and another in the afternoon. (This arrangement is in the interest of economy since hiring two part-time aides is considerably cheaper than hiring one full-time aide.) Title VII also employs two full-time media center specialists who work with students and teachers at the media centers at Schools A and B. One full-time and one part-time translator are also employed by the Title VII project. They translate a few curriculum materials and all communications between schools and parents.

There have been two Project Directors in five years under Title VII, and the present Director has served for three years. He is also the District Director of Instructional Services. Four professional consultants have been hired during 1975-76 by the project for inservice workshops and seminars.

There are ten bilingual/bicultural school/community liaisons who were originally hired through Title VII. These same people are now paid with ESA funds and work with parents of all the children including those in the Title VII project.

The Project Director, the media center specialists, twenty-two of the teachers, and fifty-three aides are of Hispanic descent and are bilingual. All the rest of the teachers are white non-Hispanics who are, however, bilingual. The other two part-time aides are English-dominant white non-Hispanics.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	5	9 part-time
Total number of questionnaires received	5	5
Highest earned college degree:		
No degree		2
Degree or diploma based on less than 4 years of work		1
B.A. or B.S.	5	1
Teaching credential only		
M.A. or higher		
No response		1
Type of state teaching credential held:		
Non-credentialed	1	3
Temporary, provisional, partial-fulfillment, or emergency		1
Regular credential	4	
Bilingual-bicultural teaching credential		
No response		1
Years of full-time teaching experience:		
Less than 1 year	1	
1 year		
2 years	1	2
3 years	1	
4 years		1
5-9 years	2	
10-19 years		
20-29 years		
30 or more years		
No response		2

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	2	1
1 year	1	
2 years	1	1
3 years		
4 years		1
5 years		
More than 5 years	1	
No response		2
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		
6-15 quarter units (4-10 semester hours)	1	
16-30 quarter units (11-20 semester hours)	1	1
More than 30 quarter units (more than 20 semester hrs.)		1
No college training in bilingual-bicultural	3	1
No response		2
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less	2	
2-15 days	1	2
15-30 days	1	
More than 30 days		1
None	1	
No response		2

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$175,000	
Other Federal and State	58,000	
Other	-0-	
TOTAL	$233,000	
• Per pupil		$214.00

In addition to the above, the following funds were designated for bilingual project schools:

School A		
Federal and State	$ 49,076	
Other	-0-	
TOTAL	$ 49,076	
• Per pupil		$ 93.30
• Total per pupil additional funds for bilingual project participants		$307.44

School B		
Federal and State	$ 15,600	
Other	-0-	
TOTAL	$ 15,600	
• Per pupil		$ 11.55
• TOTAL		$225.69

The federal and state funds received by the intensive sample schools were from Federal Titles I and II and from the state programs for disadvantaged children and for remedial reading instruction.

Other Support

Project 30 is administered in close cooperation with the District. In fact, the Project Director is also the District Director of Instructional

Services and Special Projects. The curriculum coordination for Project 30 is planned by the District's curriculum specialist. Media centers and libraries and related materials are shared by the project and regular classrooms.

The state has provided technical assistance and teacher training in bilingual education as well as informational guidance.

CLASSROOM INFORMATION

Major Features of Classrooms Observed

- Media Centers. Each elementary school in the bilingual project (with the exception of the private school) has a media center staffed with a media specialist and equipped with Spanish and English books, tapes, records, storybooks with records, and audiovisual equipment such as cassette players, Language Masters, etc. These centers are used by teachers as sources of teaching materials and by students, who go there in small groups to work on class projects.
- Staffing. Classroom teachers are "covered" by an aide for the whole school day, but the project uses two or three part-time aides for each classroom, rather than one full-time aide.

Impact Study Samples

Out of a total of thirty-nine bilingual classrooms in Project 30, twenty-one are in the target range of grades 2 through 6. Five of these classrooms (grades 2 through 6) were included in the Impact Study, and two of these were selected at random (one second grade and one sixth grade) for observation.

Instructional Startegies for Grade 2

English Language Instruction for Native-English Speakers

Oral language skills such as discussing, explaining, and sharing and also lessons in writing skills appropriate to both English and Spanish in capitalization, punctuation, grammar, and creative writing are taught bilingually, about 70% in English and 30% in Spanish, to the whole class at once. At other times, the English-dominant group (twenty-six of the thirty-one students in the class) is instructed only in English, while the five bilingual and Spanish-dominant students study Spanish Language Arts. The English group is subdivided into three ability groups for spelling. Total time devoted to oral and written language is about ten hours per week. The teacher and one of the English-dominant aides teach English Language Arts.

Students are placed in five ability groups for Reading, but they work on individual contracts within these groups. Three of the Reading groups come to school early for Reading and are dismissed early, while the other two groups remain for Reading at the end of the school day. This means that only half of the students are present during Reading periods, and the aide and teacher need to divide their time between two or three small groups. All the ability groups (which were somewhere between first- and second-grade level in mid-year) study phonics and comprehension and use the library/media center; the highest ability group also does plays and puppet skits. The principal Reading textbook is Bank Street (Macmillan Co.), and the SRA Reading kits are also used.

English Language Instruction for Native-Spanish Speakers

The Spanish-dominant students participate in the whole-class bilingual Language Arts periods discussed above. They have not begun to read in English, as the project's curriculum plan suggests that Spanish-dominant students concentrate on oral language in the second language until grade three. Their oral and aural language instruction includes pronunciation drill, discussions on set topics, and vocabulary games such as "Simon Says." The students are encouraged to speak English except when Spanish is absolutely necessary.

Spanish Language Instruction for Native-Spanish Speakers

The whole-class language instruction discussed above includes, for about 30% of the time, sharing and games in Spanish. There is about one hour a day total time spent in oral Spanish, including all sharing and discussing. One of the three part-time classroom aides is a Hispanic bilingual, and he and the teacher work with the Spanish-dominant students for Language Arts.

Spanish Reading is taught only to the five Spanish-dominant bilingual students. The bilingual aide takes primary responsibility for teaching Spanish Reading since this is taught during the same time period as English Reading (one hour a day). Four students work together at approximately first-grade level on phonics and comprehension and read library books in Spanish. The other Spanish-dominant student is at pre-reading level and receives individualized Reading instruction.

The students also work on language skills such as spelling, grammar, choral reading, sharing, games, and listening to story records during their Spanish reading period. Those students working at first-grade level have also done some writing in Spanish.

Textbooks used are from the Senda Series (Santillana, Madrid, Spain), with accompanying workbooks; Lenguaje Primer Curso (A. Mendez Garcia, LASP, Spain), and Quiero Leer 1^{o}, Beginning, (Calvo y Aguilara, Spain).

Spanish Language Instruction for Native-English Speakers

Spanish as a Second Language (SSL) is taught as part of the bilingual Language Arts period and at different odd moments during the day when the teacher may take a few minutes to play a game, do an informal drill on counting, or ask about time of day or dates in Spanish and English. The main empahsis in SSL is on vocabulary building and aural comprehension. Pronunciation is practiced but not drilled formally.

Reading is not taught in Spanish to second-graders who are English dominant, and no textbook is used for the SSL lessons.

Mathematics Instruction

Mathematics concepts are introduced by the teacher to the class as a whole (approximately two hours instruction time per week), and then the class breaks into three ability groups. The students may be regrouped as often as monthly, depending on need. One group is working at grade level, and the other two groups are of about equal medium-low ability. All have studied addition and subtraction facts as well as measurement and geometric shapes and some new math concepts. The students spend three hours a week working in these groups. Two aides (one bilingual and one English-dominant) help the teacher give individualized instruction during this period.

The school employs a Mathematics resource teacher who works with five students from this class for another hour daily. This resource teacher also gives occasional special presentations and lessons in the classroom. One such lesson on money value and making change was observed. The resource teacher spoke only English, but the classroom teacher and one aide translated the lesson for Spanish speakers, and the English-dominant aide circulated giving individual help.

Both English and Spanish are spoken freely during all Mathematics instruction. The principal Mathematics textbook is Modern School Mathematics (Houghton Mifflin). A variety of games, puzzles, charts, and manipulatives are also used.

Cultural Component

Cultural heritage is taught by means of class projects and presentations. No special effort is made to include units on Spanish or Mexican culture, and this year's units have included Native American culture, the United States Bicentennial, and black American heritage. These Social Studies units are not done regularly every week but as special projects for about one week each month. During these projects the students use the school's media center heavily, working there in small groups for about two hours daily during the course of their project.

Spanish/Mexican cultural heritage is brought out continually during every day's schoolwork--whenever a student wants to make a contribution about his culture to class discussion, even during Mathematics and Science lessons.

Instructional Strategies for Grade 6

Special Major Feature for This Classroom

This classroom is located in a middle school (grades 5 through 8) and has a daily schedule somewhere between those of the elementary school systems with one teacher per classroom and the high school systems with different teachers for each subject. Here the classroom teacher teaches Social Studies, Mathematics, and some Reading groups; the students go to other classroom teachers for Science, Spanish, Art, Music, Physical Education, English as a Second Language, and Reading (two groups).

English Language Instruction for Native-English Speakers

The class is divided into three groups for English Language Arts. The Spanish-dominant students form one group and will be discussed below under the next subheading. There is another group of three students who are working below grade level with a classroom aide. The remainder of the class is taught as a large group by the classroom teacher. They work on written skills such as capitalization, grammar, punctuation, and creative writing. Five hours a week are devoted to Language Arts, most of it on written work. There is no assigned time for oral Language Arts. Spelling is taught to all but the Spanish-dominant students in ad hoc groups formed according to current need. The textbook is Patterns of Language (Litton Educational Publishers).

For Reading, the students divide into five groups determined by standardized Reading test scores from the previous spring. Three of these groups are taught by the homeroom teacher and her aides. The students of middle ability go to another classroom teacher for Reading, apparently purely for administrative reasons. A group of eleven students, all either bilingual or Spanish-dominant, go to another classroom teacher, who is also a remedial Reading specialist. This group will be discussed below under "English Language Instruction for the Native-Spanish Students." Students are rearly, if ever, regrouped.

The three groups who remain with the homeroom teacher for Reading study phonics (that is, oral reading and pronunciation) and reading comprehension. They work alone about three hours a week and with an instructor for two hours. Students from other classrooms join students of like ability levels in this classroom for Reading. The textbooks are Open Highways (Scott Foresman); Seven Seas, textbook and workbook, (Harper & Row); and the Think and Do Book.

English Language Instruction for Native-Spanish Speakers

The Spanish-dominant students go to another teacher for English as a Second Language (ESL) instruction for five hours a week. They are all in a second-year ESL class, using the Lado Series, an audio-lingual approach to second-language learning. This involves drills in phonics, grammatical structure, sentence patterns, and sentence completion, as well as memorizing dialogues and improvising dialogues on specific topics. The class is taught entirely in English, and the use of Spanish is not allowed in the classroom, although the ESL teacher is bilingual and bicultural.

The students in this ESL class, along with six bilingual students from the homeroom class, go to yet another teacher for English Reading instruction. Here they are joined by students from other classes and are divided into five groups based on language ability. The groups read from second- through mid-third-grade level. They spend one hour a day with this teacher and her aide. The highest Reading group in this class uses the Level 3.5 textbook from the Open Highways series (Scott Foresman). The other four groups work in the Palo Alto series (Harcourt Brace) at appropriate grade level. They also use Liddler, Reading for Concepts.

Spanish Language Instruction for Ntive-Spanish Speakers

All the students in this class go to another classroom teacher for Spanish for one period a day on Monday, Tuesday, and Wednesday and Science on Thursday and Friday. They are divided into four working groups on the basis of language ability. Students are regrouped monthly. All of the Spanish-dominant and four of the bilingual students are in the highest ability group. These students are reading in Spanish at approximately fifth- or sixth-grade level. The next highest group, about third- or fourth-grade level, is made up of bilingual students.

Both of these groups spend an hour a week on creative and expository writing and associated skills such as capitalization, punctuation, spelling, and grammar. Another hour is spent on oral Spanish--poetry, storytelling, and discussions. The third hour each week is devoted to Reading, mainly concentrating on comprehension skills. The groups are taught entirely in Spanish. The main textbooks are from the Senda Series (Santillana, Madrid, Spain).

Spanish Language Instruction for Native-English Speakers

The other two groups in the Spanish class discussed above consist of the English-dominant students in the class. Both groups concentrate on oral and listening skills, spending two to 2 1/2 hours per week on pronunciation practice, sentence pattern drills, sentence completion, and other vocabulary building. Both groups spend about half an hour a week on beginning writing skills, the more advanced students doing some spelling and original writing. One group works on oral pre-reading phonics; the other reads and works on phonics and comprehension. The team teacher works with this latter group, and the aide usually instructs the nonreading group in another classroom.

It is notable that all of the students in the beginning level SSL group have been participating in the project for from two to four years. This seems to indicate that although Spanish instruction is offered, there is no strong pressure for the English-dominant students to learn the language rapidly.

Mathematics Instruction

The class is divided into to groups of almost equal size for Mathematics instruction. One group is working at grade level, receiving instruction from the classroom teacher about three hours per week and working independently for two hours. They concentrate on multiplication, division, and fractions and cover percents and measurements during the 1975-76 school year.

The second group's instruction is individualized with about half an hour's instruction a week from the aide. Sometimes these students are grouped by need for a lesson, but usually (4 1/2 hours a week) they follow an individualized course, some working on addition and subtraction, others in multiplication or division.

The language for Mathematics instruction is principally English, but instructions are translated for the Spanish-dominant students. The groups were determined on the basis of class work, class tests, and teacher judgment, and students have rarely been regrouped after the first three months of school.

The Mathematics textbook and workbook are Modern School Mathematics (Houghton Mifflin).

Cultural Component

The Social Studies period, one hour each day, is devoted to the study of Latin America and Mexico as part of the regular District sixth-grade curriculum. Three days a week the entire class participates in whole-class instruction by the teacher. Two days a week the five Spanish-dominant students work on their English spelling lessons during the Social Studies period. The language of instruction is usually English, although Spanish may be spoken by the students if they wish.

The Social Studies textbook is Voices of Latin Cultures and Ancient Civilizations (California State).

Social Studies units have included Geography, History, biography, holidays, discussions of modern culture, as well as Music, games, and Art. Latin American and Mexican folk-dancing is taught after school for two hours each week and anyone may participate.

Parent and Community Involvement

The project attempts to keep in touch with parents by means of a District bilingual newsletter and through newspaper and television presentations. Groups from the bilingual classes have also performed at local events such as the County Fair. The District sends out a bilingual parent questionnaire about once a month asking for opinions in areas such as the bilingual project, curriculum, educational objectives, and role of parents; the responses to these questionnaires are communicated to the bilingual project personnel when relevant.

One of the two classrooms observed by AIR staff reported considerable involvement of parents who serve as academic classroom volunteers, help with field trips and parties, and attend parent-teacher conferences. The other classroom (a sixth-grade middle school class) reported almost no parent participation. Although some parents had helped with parties, very few parents had been contacted by the teacher for parent-teacher conferences, which were held on an "as needed" basis.

PROJECT 31

PROJECT INFORMATION

Project Context and Target Population

Project 31 began in 1970 and serves 1,457 students in forty-one elementary level classrooms located in eight elementary schools and forty-three students in two high school classrooms located at separate schools. During the 1975-76 school year, seven fourth-grade classrooms and five fifth-grade classrooms in this project were funded under ESEA Title VII.

At the Title VII schools visited, from 17% to 30% of the students were of Hispanic descent while the remainder could be classified as white non-Hispanic. The majority of the heads of household were farm laborers and semiskilled workers who lived in single-unit houses on small lots and earned an average annual income of $8,000. In this rural community, where the population relies heavily on farmwork for its livelihood and periodically experiences influxes of migrants, the school reported annual student-body turnovers of from 30% to 35%.

Goals and/or Objectives

Project 31 serves as a resource center for schools in three counties. Center staff provide such services as inservice training, materials review, and resource teacher help for project schools. In addition, the project hires and trains aides for most project classrooms. Project goals include the following:

- Protection of cultural and linguistic diversity
- Staff development for teachers and aides
- Provision of accurate language models for project students
- The development of maintenance or transfer-type bilingual education programs according to the needs and desires of participating schools and districts

Project Staff

During the 1975-76 school year, the classroom staff for the project consisted of forty-two teachers and forty-two aides. There were seventeen Hispanic, two Asian, and twenty-three white non-Hispanic teachers. One-half of the teachers were bilingual, and twenty-two of the teachers had been with the project for three or more years. All project aides were Hispanic; thirty-nine were bilingual; and, in 1976, twenty-five had been with the project for three or more years.

During the 1975-76 school year, twenty-five of the project's certified teachers were working toward a master's degree with a specialist credential in bilingual/bicultural education, and twenty-five of the project aides were attending a local city college to receive an A.A. degree or a bilingual teaching assistant permit.

Project staff members working in the central office include a bilingual cultural anthropologist who has been with the project for two years; a non-instructional assistant who collects and analyzes evaluation data; a full-time, bilingual, Hispanic personnel coordinator; and a full-time, bilingual, Hispanic project director who has been with the project since 1970.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	4	4
Total number of questionnaires received	4	3
Highest earned college degree:		
No degree		3
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	4	
Teaching credential only		
M.A. or higher		
No response		
Type of state teaching credential held:		
Non-credentialed		
Temporary, provisional, partial-fulfillment, or emergency		
Regular credential	4	
Bilingual-bicultural teaching credential		
No response		
Years of full-time teaching experience:		
Less than 1 year		2
1 year	1	1
2 years		
3 years	1	
4 years	1	
5-9 years	1	
10-19 years		
20-29 years		
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	2	2
1 year	1	1
2 years		
3 years	1	
4 years		
5 years		
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)	2	1
6-15 quarter units (4-10 semester hours)		
16-30 quarter units (11-20 semester hours)	1	
More than 30 quarter units (more than 20 semester hrs.)		1
No college training in bilingual-bicultural		1
No response	1	
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less	1	
2-15 days	2	1
15-30 days	1	
More than 30 days		2
None		
No response		

Sources of Project Funds

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$396,000	
Other Federal and State	246,000	
Other	-0-	
TOTAL	$642,000	
• Per pupil		$428

In addition to the above, the following funds were designated for bilingual project schools:

School A		
Federal and State	$27,300	
Other	-0-	
TOTAL	$27,300	
• Per pupil		$60
• Total per pupil additional funds for bilingual project participants		$488
School B		
Federal and State	$53,233	
Other	-0-	
TOTAL	$52,233	
• Per pupil		$114
• Total per pupil additional funds for bilingual project participants		$542

At both school districts visited, the average annual per pupil cost was about $930 not including the supplementary state and federal funds listed above.

CLASSROOM INFORMATION

Impact Study Samples

Information included here is based on interviews with project staff and observers in one of the project's seven fourth-grade classrooms and one of its fifth-grade classrooms.

Instructional Strategies for Grade 4

Major Features

- This class meets in an open-classroom setting. Project students are therefore aware of and often involved in activities taking place in other classrooms in the building.
- Instruction in this classroom is highly individualized. One-half of the students arrive an hour early each day; the other half stays an hour later so that the teacher can individualize her Language Arts and Reading program. Help from a full-time aide, a Reading specialist, a Mathematics teacher in the instructional media center, a Title VII resource teacher, and high school tutors as well as a system of contract learning for Reading, Mathematics, and spelling instruction allow students to work at their own pace.
- Since the classroom teacher is a monolingual English speaker, the classroom aide is responsible for all Spanish language instruction.

English Language Instruction for Native-English and Native-Spanish Speakers

The teacher has used informal observation techniques to divide the students into four Reading groups of varying ability levels. All groups spend about 5 1/2 hours a week on Reading-related skills using Harper & Row, Macmillan, and Open Highway series readers. If a student is not ready for the next books in any given series, the teacher transfers him across series to a book of appropriate difficulty. The highest-ability group works independently during most of the week and receives no phonics instruction. The other three groups spend about half their time in teacher- or aide-led activities which include phonics instruction. For an additional fifteen minutes each day, all students practice sustained silent reading. At this time the teacher and aide also read to set an example for the students.

During writing and grammar lessons, students are divided into two groups according to their writing ability. For about three hours each week, students in these groups work in their Keys to Good Language workbooks, memorize punctuation rules and verb forms, and write nongraded, creative compositions inspired by such stories as Alexander and the Terrible, Horrible, No Good, Very Bad Day.

All students spend an additional five hours a week working on spelling activities using the state-adopted Lottmeyer speller or a locally developed Operation Spell Out. Students using Operation Spell Out are pretested, provided with a list of spelling words at their level, instructed to use these words in sentences or to write them using tactile materials, and then posttested.

During all English Reading and Language Arts instruction, students may use Spanish as needed. However, the classroom teacher is a monolingual English speaker.

Spanish Language Instruction for Native-Spanish Speakers

The aide has used informal observations techniques to form three Spanish-language Reading groups. All but two of the ten students in these groups speak Spanish at home. Students in the highest-ability group spend about 2 1/4 hours a week on Reading comprehension and 3 1/2 hours a week on grammar, fiction, and nonfiction writing activities in Spanish. The medium- and low-ability groups spend about two hours a week on Reading, comprehension, and phonics activities and about 3 1/2 hours a week on grammar and nonfiction writing.

The classroom aide provides all Spanish language instruction. Typical activities include listening to students read aloud from Santillana series readers, supervising student work in Santillana series workbooks, and dictating new vocabulary words. During this time, students speak only Spanish unless English is absolutely necessary.

Spanish Language Instruction for Native-English Speakers

About half the class meets as a second-language group and spends about 2 1/2 hours a week working with the classroom aide and with high school tutors on oral games and drills. Students may match Spanish-language word cards with picture cards, work out simple riddles read to them by the aide, or review Spanish beginning sounds using flash cards and the blackboard. Spanish language instruction for native-English speakers is conducted in Spanish unless the children need English to express an important idea.

Mathematics Instruction

At this school, Mathematics instruction revolves around the new math approach presented in Pentagram series materials. Each student is pretested by a Mathematics resource teacher and then contracts with this teacher to perform tasks in addition, subtraction, multiplication, division, or fractions. Once these tasks are completed, the student takes a post-test and moves on to a more advanced lesson.

During the six hours a week that students spend on Mathematics instruction, they may go to the Mathematics resource teacher, the classroom teacher, or the classroom aide for help. Mathematics instruction is conducted in English only.

Cultural Component

Students spend about thirty minutes a week on cultural awareness activities. In the past, they have participated in a Cinco de Mayo Fiesta, have been exposed to cultural awareness activities distributed by project resource personnel, and have sung songs with the Spanish-speaking classroom aide. This year the students prepared a recitation on the significance of Cinco de Mayo, made boleros, studied vocabulary-expanding lessons on Benito Juarez and on the origin of the poinsettia as a Christmas symbol, and learned Christmas songs such as "Jingle Bells" in Spanish.

Instructional Strategies for Grade 5

Major Features

- The atmosphere in this classroom is very relaxed. Students chat freely with the teacher, the aide, and with each other during independent study time and at instructional breaks.
- There are no separate English as a Second Language activities since students in this fifth-grade class are all able to function in English.
- Non-Title VII, sixth-grade students in this class follow the same instructional program as the Title VII, fifth-grade students observed for this description.

English Language Instruction for Native-English and Native-Spanish Speakers

According to their scores on standardized tests, the students have been divided by their teacher into high-, medium-, and low-ability Reading groups. All groups spend about five hours a week with the teacher and/or the aide working on phonics, Reading comprehension, and library skills. During this time, students use school library books, mimeographed worksheets, and appropriate readers from Scott Foresman's Open Highways series. Students read aloud from their books, answer comprehension questions in accompanying workbooks, and visit the public library every two weeks for mini-lessons on library skills.

Four students in the lowest groups are reading two years below grade level. They, therefore, spend their Reading periods in the school media center working with REACH programmed materials. The media center teacher keeps track of their progress; assigns them to activities in cassettes, books, or worksheets; and works with the students on a one-to-one basis when necessary.

For an additional two hours a week, all students work independently on creative writing projects where they expand on topics such as "I am . . .," "My favorite . . .," or "I am good at . . ."

For about 1 1/2 hours a week, students also participate in sharing and role-playing activities in English. Each Monday morning there is time to discuss any adventures the students had over the weekend. This could include a movie they saw, an automobile accident they witnessed, or a book they read. Students also do frequent role-playing activities in English. As a combination Mathematics and Health instruction activity the students pretended they were to purchase meals for a healthy evening meal with a limited amount of money. A successful Social Studies project had students researching and then role-playing in English the life of a former president.

During English language instruction, Spanish is used if absolutely necessary.

Spanish Language Instruction for Native-English and Native-Spanish Speakers

All students in this class are reading in Spanish and have been placed in groups according to their Spanish-language Reading ability. Students work about one hour a week with the classroom aide and about two hours a week independently. Typical activities include reading from appropriate level Santillana materials, answering comprehension questions in Santillana workbooks, and using locally prepared vocabulary and phonics worksheets. For fun, students play Simon Says in Spanish, join in games of Loteria, and try their hand at card and dice games in Spanish.

Thirteen of the most advanced students perform fiction and nonfiction writing tasks in Spanish. Composition topics include the completion of such unfinished phrases as "Yo soy . . .," and "Yo puedo . . . ." In the media center, these students may choose to use Spanish-language cassettes and filmstrips of fairy tales such as "Los Tres Cantantes" or "Caperucita Roja."

While the advanced students are writing or working in the media center, the rest of the class works on oral language activities. They might describe an adventure they had over the weekend, repeat pattern response drills, or discuss pictures brought in by the teacher.

During Spanish Reading and Language Arts activities, English is used as needed.

Mathematics Instruction

Students have been divided into two level groups for Mathematics instruction. They spend about 2 1/2 hours a week in these groups and an additional 2 1/2 hours a week working independently on addition, subtraction, multiplication, division, and measurement problems. The teacher presents new and review problems to the students by writing them on the board or by borrowing ditto masters from various Mathematics textbooks including Modern School Mathematics Structure and Use, the Sullivan series, and older state-adopted textbooks available in limited numbers at the school. Students play card and dice games to drill addition and subtraction and learn about shapes and measurement by coloring designs made with line segments. Mathematics instruction is conducted primarily in English.

Cultural Component

As part of their Social Studies program, students rotate between four teachers for five-week units on topics such as Research Skills, Alaska, Hawaii, Map Skills, and Mexico. Consequently, for about five weeks out of the year, students in this class spend forty minutes a day learning about the physical and political maps of Mexico and other countries. Additional cultural awareness activities include occasional visits by parents to make tortillas, tostadas, and burritos; and discussions of costumes and holidays in various regions of Mexico.

Parent and Community Involvement

The major contact with parents occurs during grade-reporting periods. One teacher who was interviewed contacts all parents twice a year. The other teacher contacts all parents once a year, except when special problems necessitate more frequent calls or visits. Both teachers indicate that from three to five parents a year help with classroom parties.

PROJECT 32

PROJECT INFORMATION

Project Context and Target Population

Project 32 began in 1972. There are ninety-three schools in the District. Twenty-six of these schools are in the project and serve approximately 4,225 students in pre-kindergarten through grade 12.

There are several major concentrations of Spanish-speaking people in the large metropolitan city where the project operates. The two largest Hispanic groups, Puerto Rican and Mexican-American, are approximately equal in number. There are more Mexican-Americans in this city than in any other city outside the Southwest and more Puerto Ricans than in any other city except New York. According to data available from the municipal library in the City Hall, the Spanish-Speaking Peoples Study Commission reported in 1971 that 325,000 Spanish-speaking persons resided in the city--slightly less than 10% of the city's total population at that time.

The largest concentration of Spanish-speaking people is in the community areas served by School A. The population of these particular areas is predominantly Puerto Rican. The total enrollment is 1,081 and is comprised of 60% Spanish-surnamed students and 40% white non-Hispanic, black American, and Asian students. Those attending the school come from families with an average family income of from $4,000 to $6,000 and live in mixed single-unit and multiple-unit dwellings. According to the principal interviewed, the area is considered to be transient because of housing problems. Approximately one-third of the total school population transfers within the District during the school year. The white non-Hispanic population that the school serves is mostly from the Appalachian states.

School B is located in a smaller area of Spanish-speaking concentration. In 1970 there were, in this vicinity, approximately 7,000 Spanish-speaking people, mostly Mexican-American, representing 9% of the total community population.

The total school population at School B is 174 students. The ethnic composition of the school is 85% Mexican-American, 12% white non-Hispanic, 1% Puerto Rican, 1% Basque, and 1% black American. The percentage of families in the school attendance area who are either bilingual or monolingual Spanish speakers is 65%, while the remaining 35% is made up ethnically of white non-Hispanics, 15% of whom are Italian/English bilingual. Students attending School B come from families with an average income of $4,000 to $6,000 and live in mixed single- or multiple-unit dwellings including flats and apartments over store fronts. According to the principal interviewed, one-third of the total enrollment is mobile, usually transferring to schools outside the District at midyear or upon promotion to the next grade level.

Goals and Objectives

The bilingual project includes four components: instruction, parent/community involvement, curriculum/materials development, staff recruitment and development. The proposed goals are the following:

- For students to master expression and communication skills in their native and second languages
- For students to achieve at a rate commensurate with their age, ability, and grade level in all content subject areas
- For students to develop and maintain a positive self-concept and an appreciation for the languages and cultures of other participating students
- For students to be provided with a coordinated, cohesive, and integrated learning environment through effective coordination with the general school programs
- For all teachers and staff members at participating schools to be involved with inservice training programs
- For parents and other community members to be involved in the further planning, implementation, and evaluation of the bilingual project

Project Staff

The project is supported by the services of fifty-four teachers, eighty-seven classroom aides, three community/school liaisons, ten school coordinators, four district-level coordinators, one counselor, twelve clerks, four central office coordinators, one project director, and one learning disabilities teacher. The entire staff is employed full time, and each staff member is bilingual and of Hispanic descent.

The information gathered from the Teacher/Teacher Aide Questionnaire from the Intensive Study sample shows that six teachers have bachelor's degrees and three teachers have master's degrees. Five teachers have regular credentials, and three have partial, provisional, or temporary credentials. All have taught in a regular classroom setting for more than five years; however, the bilingual teaching experience of each of the nine teachers covered less than four years. The ethnic representation is 60% Hispanic and 40% white non-Hispanic. Six of the nine teachers are totally bilingual. Specific training in the area of bilingual/bicultural education ranges from fifteen to thirty units at the college level. Two of the nine teachers have had no training at all in this field of study. Approximately two to fifteen days a year are spent at workshops and in-service training sessions dedicated to bilingual education. The two classroom aides who responded to the questionnnaire have no college degree, are noncredentialed, have had from two to four years' experience in the bilingual project, and see their roles as being interchangeable with that of the teacher. They have received from six to thirty units in the area of bilingual/bicultural education at the college level and attend workshops from two to fifteen days a year.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study		
Total number of questionnaires received	11	3
Highest earned college degree:		
No degree		3
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	6	
Teaching credential only	1	
M.A. or higher	4	
No response		
Type of state teaching credential held:		
Non-credentialed		2
Temporary, provisional, partial-fulfillment, or emergency	2	
Regular credential	8	1
Bilingual-bicultural teaching credential		
No response	1	
Years of full-time teaching experience:		
Less than 1 year	1	
1 year	1	
2 years		1
3 years		1
4 years	2	1
5-9 years	3	
10-19 years		
20-29 years	3	
30 or more years		
No response	1	

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	3	
1 year	1	
2 years	1	1
3 years	3	1
4 years	2	1
5 years	1	
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)	1	
6-15 quarter units (4-10 semester hours)	5	1
16-30 quarter units (11-20 semester hours)	3	1
More than 30 quarter units (more than 20 semester hrs.)		
No college training in bilingual-bicultural	2	1
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less	2	1
2-15 days	5	2
15-30 days	1	
More than 30 days	3	
None		
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII*	$238,138	
Other Federal and State	-0-	
Other	-0-	
TOTAL	$238,138	
• Per pupil		$547.44

In addition to the above, the following funds were designated for bilingual project schools:

School A		
Federal and State	$103,836	
Other	180,000	
TOTAL	$283,836	
• Per pupil		$259.21
• Total per pupil additional funds for bilingual project participants		$806.65

School B		
Federal and State	-0-	
Other	$48,000	
TOTAL	$48,000	
• Per pupil		$275.86
• Total per pupil additional funds for bilingual project participants		$823.30

---

* This includes the Title VII money only for the three schools included in the Impact Study, and the per pupil cost above is an average across the three schools. Actually, School A receives $144,138 ($480 per pupil), School B receives $51,00 0 ($638 per pupil), and School C receives $43,000 ($782 per pupil).

School C

Federal and State	-0-
Other	$27,000
TOTAL	$27,000

• Per pupil	$217.74
• Total per pupil additional funds for bilingual project participants	$765.18

CLASSROOM INFORMATION

Major Features of Classrooms Observed

The project requires that students of various ethnic and linguistic backgrounds be integrated in the classroom and that, while maintaining cultural differences, these differences can be studied and understood within the framework of a single classroom setting in which both languages are used as a means of communication and instruction. Self-concept and heritage are continuously reinforced. The methodology of the project is full-time team teaching. One Spanish-speaking and one English-speaking teacher are assigned to a single class and work as a team.

School A

School A also offers a program for students with learning disabilities who participate in the bilingual project. It provides individualized instruction for students in the primary grades in their dominant language (Spanish). The students meet with the teacher in small groups (two to four participants) and are primarily taught Language Arts, although they receive instruction in every content area of the curriculum. The teacher has the students for approximately forty-five minutes daily. The balance of the day is spent in the regular bilingual classroom. There were no students with learning disabilities in the two classrooms observed. The learning disabilities teacher is employed full time, is bilingual/bicultural, and is specifically trained in this area.

School B

Students from the community served by School B are grouped in the instructional program according to language dominance and level of proficiency as determined by achievement according to the continuous progress guidelines of the city's Board of Education.

Students participating in the project at this school receive instruction in the Spanish resource rooms for forty-five minutes daily. The two rooms are served by two bilingual/bicultural teachers and two bilingual/bicultural classroom aides, all of Hispanic descent. Students receive instruction in Spanish Language Arts and Spanish as a Second Language (SSL). Other content areas are taught and reinforced as needed by individual students.

Impact Study Samples

Of the ninety-three schools in the District, twenty-six are participating in the Title VII project ranging from kindergarten through grade 12. A third-grade, a fourth-grade and a fifth-grade classroom were selected at random for observation.

The total enrollment of the third-grade class is thirty-five students. The ethnic composition is thirteen Mexican-American, eight Puerto Rican, one South American, ten white non-Hispanic, and two black American students. The class is team taught and divided according to language dominance. One of the two teachers and the classroom aide are bilingual, and all are of Hispanic descent. The other teacher's ability to verbalize in Spanish is minimal.

The total enrollment of the fourth-grade class is twenty-six students. The ethnic composition is twenty Mexican-American students and six white non-Hispanic students. The core class is taught by a white non-Hispanic teacher who does not speak Spanish but does comprehend the language when spoken to. There is no classroom aide in the core classroom. The two teachers and the two aides in the Spanish resource room are all bilingual and of Hispanic descent.

The total enrollment of the firth-grade class is thirty-two students. The ethnic composition is ten Mexican-Americans, ten Puerto Ricans, and twelve white non-Hispanics. The team-teachers are bilingual:

One team-teacher is Hispanic and bilingual; the other is white non-Hispanic and Spanish/English/Italian trilingual. The classroom aide is of Puerto Rican descent and is bilingual.

The following information is based on discussions with project staff and on classroom observations.

Instructional Strategies for Grade 3, School A

English Language Instruction for Native English Speakers

Students receive formal English as a Second Language (ESL) instruction from the English-dominant team-teacher. The approach used is total immersion. The three major components of the ESL instructional program are (1) oral language development, (2) language experience, and (3) the use of a basic reader from the Open Court Series (Open Court Publishing Co.). Emphasis is placed upon pronunciation, sentence completion, and vocabulary expansion drills. Instruction is approximately thirty minutes daily. The teacher uses listening comprehension drills, dictation, and audiovisual materials to supplement instruction. The use of Spanish is allowed only when absolutely necessary.

English Language Instruction for Native-Spanish Speakers

The class is grouped according to ability and language dominance. Instruction is approximately forty-five to ninety minutes daily. Spelling is a separate unit of instruction and is taught for forty-five minutes three times a week to each group. The major components of Language Arts are capitalization, punctuation, grammar, and fiction and non-fiction writing. The teachers spend approximately twenty-five minutes daily on the introduction of new Language Arts concepts and sixty-five minutes daily on oral reading practice and comprehension. The major textbook used is the Open Court Basic Reading Series ranging form levels 1-1 to 2-2 (five groups). The ESL group of nine Spanish-dominant students use the pre-primer of the series, which develops Reading readiness and basic decoding skills. Open Court is a total Language Arts program emphasizing the morphological structures of the English language, syntax, and phonology. The program stresses teacher dictation which attacks grammatical structures, self-correction/editing, letter and word recognition, thought sequence, inference, main ideas, written composition, and sound-symbol relationships. The stories in the series touch upon ideas in the content areas (Geography, History, Social Science, Science, etc.). There are comprehension questions at the end of each section which are to be answered in both oral and written form.

Spanish Language Instruction for Native-Spanish Speakers

Spanish Reading and Language Arts are taught as one unit of instruction. The class is divided into four groups based upon language usage, oral reading, and comprehension abilities. Instruction is approximately seventy-five minutes daily, taught by the Spanish-dominant teacher and classroom aide. The major textbooks used for Reading are from the Laidlaw series. For language development, the textbook used is Libro Segundo y Tercero de Lectura (Ediciones Escolares, Santo Domingo); Practica de Ortografia - 3 (Cultural Puertorriguena, Inc.); and Lectura - 3^{o}/Cuadero de Trabajo (Editorial Minerra Book, Ltd.). The curriculum covers capitalization, punctuation, spelling, grammar, creative writing, vocabulary expansion, and nonfiction writing. Approximately twenty-five minutes daily are devoted to seat work and/or individualized instruction based upon need. Language Arts instruction is supplemented by the workbook from the Reading series at appropriate levels, instructional games developed by the teachers, songs, poetry, and music.

Spanish Language Instruction for Native-English Speakers

Students receive formal Spanish as a Second Language (SSL) instruction from the Spanish-dominant team-teacher for approximately thirty minutes daily. The major component of the SSL program is oral language development. No textbook is used. All instructional materials (games, drills, exercises) are teacher developed. Emphasis is placed upon vocabulary expansion and sentence patterns to enhance communication skills.

Mathematics Instruction

The class is divided into two groups according to ability and language dominance as determined by teacher observation and assessment. Of the thirty-five students, twenty-nine receive instruction in English using the English version of the Spanish textbook, Matematica Para la Educacion Primaria (Fondo Educative Interamericano). The remaining six students receive small-group instruction in Spanish with the Spanish-dominant teacher. The classroom aide individualizes both groups on the basis of need and teacher/student request. The curriculum covers the principles of addition, subtraction, multiplication, division, fractions, measurement, time, weight, and the new math for the group of twenty-nine students. The six students who receive small-group instruction concentrate on the principles of addition, subtraction, and multiplication. Approximately fifteen to twenty minutes a day are spent on application. Games, manipulatives, charts, and oral drills are used to supplement instruction.

Instructional Strategies for Grade 5, School A

English Language Instruction for Native-Spanish Speakers

English as a Second Language is taught by the English-dominant team-teacher for approximately forty minutes daily and reinforced by the classroom aide for approximately sixty minutes daily during the English Reading segment of Language Arts instruction. (ESL instruction takes place while the rest of the class, twenty-one students, are receiving ELA). Emphasis is placed upon oral language development, vocabulary expansion, sound-symbol relationships, sentence structure drills (repetition, open-ended, substitution); spelling, phonics, and basic grammatical concepts. The major textbooks used are English Step by Step (Regents Publishing Company), LADO English Series, and Widening Circles (Harcourt Brace Jovanovich), a basic reader to develop Reading readiness skills primarily working with decoding and sign vocabulary. Approximately twenty-five minutes daily are spent on oral reading practice and conversation and thirty-five minutes on conversation. The teaching approach used includes total immersion in English and audio-lingual activities emphasizing work/thought association through the use of chalk murals on the blackboard and magazine pictures for storytelling.

English Language Instruction for Native-English Speakers

English Language Arts and Reading are taught as one unit of instruction. The major textbooks used are the Harcourt Brace Jovanovich Reading series and workbooks at appropriate levels and Spell Correctly, Levels 3 and 4. ELA and Reading are team taught, and instruction is individualized by the classroom aide on the basis on need. Students are grouped according to ability by teacher observation, assessment, and an overview of scores from the spring Iowa Achievement Test. ELA/Reading is team taught for approximately ninety to 120 minutes daily. In the area of Language Arts, emphasis is placed upon capitalization, punctuation, grammar, creative writing, nonfiction, storytelling, choral reading and sharing which are reinforced during Reading development. Approximately twenty minutes daily are spent on spelling and vocabulary review and expansion; forty minutes on the presentation of Language Arts concepts relating directly to the reading; and thirty to sixty minutes daily on oral reading practice, development of comprehension skills, and supervised seat work.

Spanish Language Instruction for Native-English Speakers

Of the thirty-two English-dominant students, eleven receive SSL instruction from the Spanish-dominant bilingual team-teacher for forty minutes daily. Emphasis is placed upon oral language communication skills, vocabulary expansion, language structures, oral reading, and conversation, which are reinforced by teacher-developed games, drills, and exercises geared to second-language learning. These students receive SSL instruction from other bilingual team-teacher during the same time period.

Spanish Language Instruction for Native-Spanish Speakers

Students are grouped according to ability for Spanish Language Arts (SLA) and Reading, which are taught as one unit of instruction for sixty minutes daily. Such instruction is given by one of the bilingual team-teachers and the classroom aide. The major Reading textbooks from the Laidlaw series and workbooks at appropriate levels are used to develop written comprehension skills and to reinforce as well as to introduce grammatical concepts. Graded Exercises in Spanish is used as supplementary material for Language Arts. Emphasis is placed upon capitalization, punctuation, spelling, grammar, pronunciation, prose, poetry, sharing, the development of oral and silent Reading skills, phonics, and comprehension. Approximately fifteen minutes are spent daily on presenting new Language Arts concepts, ten minutes on reviewing material, fifteen to twenty minutes on oral reading with each of the two groups, and fifteen to twenty on comprehension exercises.

Mathematics Instruction

Students are grouped according to language proficiency, and instruction is individualized within each group according to ability. Of the thirty-two students, eleven receive Mathematics instruction in Spanish, and twenty-two receive instruction in English. The major instructional materials are teacher-developed exercises, drills, games, individualized Mathematics kits, and the blackboard. The major textbook used is Mathematics for Primary Education, Level 5, (Fondo Educativo Interamericana), both the Spanish and English versions. The curriculum is based on the objectives for the fifth grade as set forth by the city's Board of Education. The topics covered are addition, subtraction, multiplication, division, fractions, measurement, time/weight, geometry, algebra, and the new math. Approximately ten minutes daily are spent on reviewing homework, twenty minutes on the presentation/introduction of concepts, and thirty minutes on application. At the time of observation, it was noted that each group member participated equally. For written exercises, the teachers have set up teams for peer-tutoring within each of the groups.

Cultural Component for Grades 3 and 5, School A

These team-taught classrooms reflect and promote both Hispanic (Puerto Rican and Mexican-American) and North American culture at all levels in the curriculum. The value of bilingualism is reinforced and nurtured. Student projects and academic works in both languages are displayed in the classroom and used as learning tools. Time is spent daily on Social Studies concepts as they relate to students' immediate needs and interests. An effort is made to develop cultural awareness as it relates to interpersonal relationships and the transmission of culture within the community setting. The objective of the Social Studies curriculum is to foster a positive self-concept in one's culture and language, as well as to gain an accurate understanding and appreciation of other cultures. One forty-five to sixty-minute period is spent weekly on a unit specifically devoted to Hispanic culture through the media of Art, multimedia materials, folklore, student oral reports, guest speakers, and/or teacher-directed lectures. Student participation is encouraged. The remaining 2 3/4 hours weekly are spent on Social Studies focusing upon other cultures around the world as well as on ethnic groups living in the United States.

Instructional Strategies for Grade 4 (School B)

English Language Instruction for Native-English Speakers

The class of twenty-six students is not grouped for Language Arts instruction; however, the teacher individualizes instruction for the students who are in need of intensive English as a Second Language (ESL) instruction. Emphasis is placed upon phonics, sound-symbol relationships, sentence pattern, grammatical structures, word usage/definition, punctuation, and capitalization. (The same curriculum is used for the three students receiving ESL, but the teaching strategy applies to second-language learning. Instead of written exercises, efforts are concentrated in developing oral language abilities and Reading readiness skills.) Approximately forty minutes are spent on Language Arts concepts three times a week. Spelling is taught twice weekly for forty minutes using Spell Correctly, Levels 3, 4, and 5 (Silver Burdett) as the basic textbook. There is no textbook used for general ELA instruction. Games, exercises, drills, and exercise sheets are teacher developed.

The class of twenty-six students is grouped for Reading instruction based upon teacher observation, assessment, and the Iowa Achievement Test, pretest and posttest. Ten students participate in the Reading program with another classroom teacher. These students are at the third-grade level. Fourteen of the students receive such instruction from the homeroom teacher and are at fourth-grade level. The two students who receive

ESL instruction are nonreaders in English and are receiving Spanish Reading and Language Arts twice daily. The major textbooks used are from the Harper & Row series at appropriate levels with workbooks to supplement instruction by reinforcing Language Arts concepts and developing comprehension skills. Emphasis in Reading is placed upon word attack, comprehension, phonics, study skills, and an appreciation of general fiction, nonfiction, poetry, and prose. Approximately twenty-five minutes daily are spent on oral reading practice and fifteen to twenty minutes on comprehension. The one student who is receiving instruction from the classroom teacher is also receiving twenty extra minutes daily for enrichment as he is far above his grade level in Reading. Emphasis for this student is placed upon written composition, characterization, theme, interpretation of ideas, and comprehension of facts.

Spanish Language Instruction for Native-English Speakers

English-dominant students are grouped together for Spanish as a Second Language instruction for forty minutes daily in one of the two Spanish resource rooms with a Spanish-dominant teacher and aide. Emphasis is placed upon oral language communication skills through the use of poetry, prose, music, and vocabulary expansion exercises; and upon Reading readiness through picture association, sentence pattern, repetition, substitution, completion drills, and word games. The teacher has developed games, drills, and exercises geared to second-language learning. Approximately fifteen to twenty-five minutes daily are spent on conversation (language usage, vocabulary, self-expression); ten to fifteen minutes on oral reading practice/comprehension; and five to ten minutes daily on seat work. The major textbooks used are Preparandoles Para Leer (Houghton Mifflin Co.) and Mi Primer Larouse en Colores (Ediciones Larousse). Students are not grouped as a whole class for such instruction. Six of the thirty-two students from the core classroom receive SSL.

Spanish Language Instruction for Native-Spanish Speakers

Spanish-dominant students, at different grade and proficiency levels, receive Spanish instruction in the resource room for forty minutes daily from a Spanish-dominant bilingual teacher and classroom aide. The major textbook used for Reading is Senda, Levels I, II, IV, V (Santillana Publishing Company), with accompanying workbooks at appropriate levels for Language Arts concepts concentrating on all aspects of grammar and usage. Eleven students from the classroom observed receive such instruction. Approximately twenty-five minutes daily are spent on oral reading and comprehension practice, and fifteen minutes are spent on Language Arts concepts and written composition practice supervised by the classroom teacher and/or aide. Emphasis is placed upon capitalization, punctuation, spelling, poetry, prose, thought sequence, recollection of facts, main ideas/theme, vocabulary expansion, intonation, and pronunciation. Students are grouped within the resource room according to ability as determined by teacher observation and assessment.

Mathematics Instruction

The homeroom teacher has divided the class into two ability groups. The entire class is taught in English. The two students receiving intensive ESL instruction receive reinforcement in Spanish in the resource room three times weekly. The Mathematics curriculum is based upon the local Board of Education guidelines. Approximately forty minutes weekly are spent presenting new concepts; 120-140 minutes weekly are spent on seat work and individualized instruction concentrating on Mathematics application. Topics covered include the basic principles of addition, subtraction, multiplication, division, fractions, time, weight, measurement, and geometry. The major textbook used is Modern Mathematics Through Discovery - 5 (Silver Burdett). Those two students who have not reached grade level proficiency in English use the Spanish version. Students are regrouped on the basis of teacher observation and assessment of readiness and progress. Both groups are taught the same material; however, one group works more independently at a more rapid pace geared specifically to individual needs.

Cultural Component

For thirty minutes daily Social Studies is taught by the homeroom teacher who is not directly involved with the bilingual project. The regular Social Studies curriculum used by this teacher does not include a specific amount of time to be devoted to Hispanic culture. The curriculum used is based on city-wide grade level objectives.

Students receiving Spanish as a Second Language or Spanish Language Arts in the resource rooms spend time on class discussions related to literature selections on Hispanic culture as part of the daily curriculum. Historical events and famous people and holidays are discussed at appropriate times. The time spent in the resource room daily is limited; hence, cultural heritage is mostly highlighted through the Reading series used and supplementary materials available in the classroom.

Parent and Community Involvement

All parents of students confer at least twice yearly with the classroom teacher and aide in a formal meeting at the school. At various times during the year, teachers visit with parents in their homes to discuss special problems and/or the students' progress. Approximately 50% of the project parents attend project- and district-sponsored functions, such as open houses, classroom parties, and field trips three to five times yearly.

PROJECT 33

PROJECT INFORMATION

Project Context and Target Population

Project 33 began in 1970. The District is located in a large metropolitan city with a variety of ethnic, linguistic, and socioeconomic groups. In the District's elementary and junior high schools, there are over 6,695 Hispanic (Puerto Rican, Dominican, Central American, South American, and Haitian) students. Of these, 2,985 are of limited English-speaking ability, according to the results of the city's Language Ability Battery. Within the central portion of this district, the concentration of Puerto Rican and other Hispanic-surnamed students in each school ranges from 32% to 75% of the total population. In addition, a large number of French-speaking Haitian families are moving into the area of the city served by the District resulting in an increased enrollment of French-speaking students.

Many of the non-English-speaking students who enroll in the public schools have been provided with bilingual education through the existing bilingual project, which serves students in kindergarten through grade 4. Additionally, the project is designed to provide bilingual instruction for 515 non-English-speaking students in the fifth- and sixth-grade levels in ten schools. The District is committed to providing bilingual education on all other grade levels. There are twenty-three schools in the District, sixteen of which operate as bilingual project schools. There are 4,363 Spanish- and Franch-speaking students enrolled in the ten schools operating under Title VII funds.

Goals and Objectives

The proposed goals for the District's bilingual project are (1) to maintain the normal progression in the academic achievement of bilingual students through instruction in their native language while they are learning English; (2) to produce a heightened awareness of cultural heritage and its influence on the daily life of students in the District as well as of the cultural environment in which they are now living; (3) to provide for staff training in bilingual education; (4) to develop a totally bilingual curriculum; and (5) to provide an outreach program for parental and community involvement within the bilingual program.

Project Staff

The Title VII staff for the current project includes twelve teachers, the Project Director, two curriculum trainers, one community coordinator, and one teacher-trainer.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	5	3
Total number of questionnaires received	5	2
Highest earned college degree:		
No degree		
Degree or diploma based on less than 4 years of work		2
B.A. or B.S.	3	
Teaching credential only		
M.A. or higher	1	
No response	1	
Type of state teaching credential held:		
Non-credentialed		
Temporary, provisional, partial-fulfillment, or emergency	1	1
Regular credential	2	1
Bilingual-bicultural teaching credential	1	
No response	1	
Years of full-time teaching experience:		
Less than 1 year		
1 year		
2 years	2	
3 years		
4 years	1	
5-9 years	2	1
10-19 years		1
20-29 years		
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year		
1 year		
2 years	2	
3 years	1	
4 years	1	1
5 years		1
More than 5 years	1	
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		
6-15 quarter units (4-10 semester hours)	3	1
16-30 quarter units (11-20 semester hours)		
More than 30 quarter units (more than 20 semester hrs.)	1	
No college training in bilingual-bicultural	1	
No response		1
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		1
2-15 days	4	
15-30 days		
More than 30 days		
None	1	1
No response		

Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$309,545	
Other Federal and State	-0-	
Other	-0-	
TOTAL	$309,545	
• Per pupil		$1,049.30

In addition to the above, the following funds were designated for bilingual project schools:

School A		
Federal and State	$ 70,500	
Other	-0-	
TOTAL	$ 70,500	
• Per pupil		$ 107.14
• Total per pupil additional funds for bilingual project participants		$1,156.44

School B		
Federal and State	$154,000	
Other	-0-	
TOTAL	$154,000	
• Per pupil		$ 157.94
• Total per pupil additional funds for bilingual project participants		$1,207.24

School C

Federal and State	$61,000	
Other	-0-	
TOTAL	$61,000	
• Per pupil		$ 136.16
• Total per pupil additional funds for bilingual project participants		$1,185.46

School D

Federal and State	$160,500	
Other	-0-	
TOTAL	$160,500	
• Per pupil		$ 222.91
• Total per pupil additional funds for bilingual project participants		$1,272.21

CLASSROOM INFORMATION

Major Features of Classrooms Observed

School A

- The teacher developed games, audiovisual materials, and manipulative objects for students to use individually in learning mathematical concepts. Students spent the majority of their time during the Mathematics period at problem-solving using these materials.
- This entire class was taught in both Spanish and English. The teacher would first present lessons in English and then immediately reinforce the material in Spanish. The students had a choice as to which language they would respond in.

School B

- This teacher purchased materials for a resource/supplementary materials library in the classroom. The students can check out materials daily for use in the classroom only. Materials available in the classroom library are bilingual and pertain to content area subjects being taught as part of the curriculum.

School C

- This class is team taught. Teachers suggested classroom projects in creative writing for the students as part of the Spanish and English language curriculum. At the time of this observation, students were involved in writing books, which included short stories, poems, and art work on topics related to their personal interests. All the materials written were bilingual. Students were also being taught how to bind the books. In addition to exercising and developing appropriate writing skills, students were encouraged to share their projects with their peers to further develop their oral language abilities and to create a sense of pride in their achievements.

School D

- There is no formal English as a Second Language component at this school. The approach used is direct translation from Spanish to English. Emphasis is placed upon the development of oral language skills.

Impact Study Sample

The following information is based on discussions with project staff and on classroom observations in four of the project's ten targeted schools at the fifth-grade level.

Instructional Strategies for Grade 5, School A

The total enrollment of the fifth grade is nineteen students. The class is composed ethnically of five Dominican students, ten Puerto Rican students, and four South American students. The teacher and aide are both bilingual and of Hispanic descent. The entire class is made up of native-Spanish speakers.

English Language Instruction for Native-Spanish Speakers

Approximately forty-five to ninety minutes are spent weekly on English as a Second Language (ESL) instruction. The major textbook series used is Learning English as a Second Language—Aprendiendo Ingles Como Segundo Idioma, an Oceana series. The major areas of concentration are pronunciation, sentence pattern drills, sentence completion drills, and vocabulary expansion. The seven participating students meet with another classroom teacher for ESL instruction during the regular English Language Arts period once or twice weekly. Three times weekly, they are grouped together during the regular English Language Arts period with the classroom aide for English language usage, pronunciation, vocabulary expansion drills, phonics, syntax, and basic grammar.

English Language Instruction for Native-English Speakers

Twelve students receive Language Arts instruction for three forty-five-minute periods a week. Content areas include capitalization, punctuation, spelling, grammar, and creative writing. Twice weekly, time is spent on oral language development activities such as sharing experiences through conversations and storytelling in English. To increase oral proficiency, creative dramatics and role-playing are employed.

Students are grouped according to language proficiency and ability for Reading. There are five groups. The major textbooks used are from the Bank Street Reading Series, ranging from levels 3-2 to 1-1. Approximately forty-five minutes daily are spent on Reading with the classroom teacher and aide. Time is spent on developing oral reading skills, phonics, and comprehension skills. Teachers utilize the Board of Education

Curriculum Guide, the Language Arts handbook, textbooks, workbooks, and teacher-developed supplementary materials.

Spanish Language Instruction for Native-Spanish Speakers

Students are grouped for Spanish as a Second Language (SLA) and Reading according to ability and proficiency (oral/written command of the Spanish language). The major textbooks used are from the Laidlaw series ranging from level 1 to 3-2. Capitalization, spelling, grammar, and creative writing are emphasized daily within each of the groups. Time is spent on developing oral language skills (communication), oral reading skills, silent reading skills, and comprehension skills. The two lower groups are taught by the aide, while the most advanced group is taught by the teacher. SLA instruction is approximately ninety minutes daily which includes twenty minutes of seat work, and forty-five minutes of oral work. Workbooks and teacher-made materials supplement SLA instruction and approximately twenty-five minutes is spent on reading comprehension.

Mathematics Instruction

Students are not grouped for Mathematics instruction; however, instruction is individualized according to special needs. The District's Curriculum Guide for grades 3 and 4 is used as a guide. Five forty-five minute periods a week are devoted to Mathematics instruction: two are spent on concepts and three on applications. Content areas covered are addition, subtraction, multiplication, division, fractions, percentages, measurement, time/weight, and basic principles of geometry and algebra. Mathematics instruction is supplemented with supplies and manipulative objects. The major textbooks used are Modern Mathematics, Levels 3 and 5, Elementary Math/Two by Two, and Growth in Arithmetic, Grade 4. All lesson plans other than lectures are geared to the individual needs of the average student in the class, who is at the third-grade level in Mathematics.

Instructional Strategies for Grade 5, School B

The total enrollment of the fifth-grade class is twenty-eight students. The ethnic distribution of students includes fifteen Dominicans, eleven Puerto Ricans, and two South Americans. The teacher and classroom aide are bilingual and of Hispanic descent.

English Language Instruction for Native-Spanish Speakers

Intensive ESL instruction is given to a group of six students for forty-five minutes daily with another classroom teacher at the same grade level. These students are Spanish monolinguals enrolled in the program since November 1976. Emphasis is placed on phonics, pronunciation, vocabulary expansion, syntax, and phonology.

English Language Instruction for Native-English Speakers

Instruction in English Language Arts is given to twenty-two students for forty-five minutes twice weekly by the classroom teacher. The major textbooks used are Reading Thinking Skills Series, (Continental Press), *Hayes Language Drills and Tests*, *Let's Write*, and *Phonics*, (Hayes School Publishing Co., Inc.). The teacher uses rexographs and games to supplement such instruction. Written and oral skills such as capitalization, punctuation, spelling, grammar, choral reading, sharing, and poetry are emphasized.

For Reading, the class is grouped according to ability and language proficiency. The major textbooks used are from the Houghton Mifflin Reading Series (*Rainbows*, *Kaleidoscope*, *Images*, and *Panorama*) ranging from levels preprimer through 5, and workbooks at appropriate levels. Approximately twenty minutes are spent on presenting background information about the Reading material, twenty minutes on oral reading practice (with the teacher, classroom aide, and another classroom aide from the ESL class), twenty minutes on seat work using the workbooks and teacher-made materials, and approximately thirty minutes on reviewing the Language Arts concepts used in the Reading material. Instruction is individualized according to need. The classroom aide works with the six students who are receiving intensive ESL instruction. These students are using a preprimer-to primer level textbook and are in the process of developing basic decoding skills and sight vocabulary. Emphasis is placed upon phonics and pronunciation. Instruction is totally individualized by the classroom aide and includes appropriate lesson plans to meet the needs of each of the six students involved. (The task of the Title VII classroom aides is to give small-group, remedial and individualized instruction.)

Spanish Language Instruction for Native-Spanish Speakers

The class is not grouped for Spanish Language Arts instruction. The major textbook used is Lengua Espanola, Niveles 4 and 5, by Doctora Delia Diaz de Villa, Cultural Centro Americana, SA. The language textbook focuses on grammatical structures, language usage comparisons between English and Spanish, syntax and phonology, capitalization, and punctuation. Approximately twenty minutes are spent on the actual presentation of Language Arts concepts and twenty-five minutes on individualized seat work supervised by the classroom teacher and aide.

For Spanish Reading the class is grouped according to ability. The main textbooks used for both groups are Dos Amigos and Otras Culturas, Laidlaw Series. In addition, appropriate workbooks are used. The major focus is on pronunciation, phonics, and the development of comprehension skills. Approximately fifteen to twenty minutes are spent with each group on oral reading practice with the classroom teacher and aide, and ten minutes are spent daily on fact retention, thought sequence, characterization, theme, inference, and main ideas. The remaining fifteen minutes are spent on seat work and individualized instruction which focuses on Language Arts concepts used in the Reading material and written comprehension exercises relating to the material read.

Mathematics Instruction

Students are grouped according to Mathematics ability based on a teacher-developed diagnostic test extracted from the fourth-grade Mathematics curriculum. The major textbooks used are Exploring Mathematics, Level 4 (Webster Publishing Co.) and Essentials of Arithmetic (Laidlaw Series). The Spanish translation is used as supplemental material. The class is team taught by other teachers at the same grade level, with twelve students remaining with the classroom teacher at this time. Mathematics is taught bilingually for forty-five minutes daily. The type of bilingual approach used is "concurrent", which means that the concept is delivered in one language first and restated in the other language. Approximately thirty minutes are spent on concepts and fifteen minutes on application in each of the three groups. The topics covered are addition, subtraction, multiplication, division, percentages, time/weight, new math, and word problems for the more advanced group. The classroom aide works with four students on an individual basis, gearing lesson plans to their needs. She spends approximately ten to fifteen minutes with each of the students, who are at the first-grade level, having had no previous Mathematics instruction. Time is spent on number identification and counting, using practical application relating numbers to already established vocabulary. The abacus is used to supplement such instruction.

Instructional Strategies for Grade 5, School C

The total enrollment of this class is thirty-two students. It is composed of twenty-eight Puerto Rican, two Dominican, and two South American students. The teacher is bilingual and of Hispanic descent. There is no classroom aide.

English Language Instruction for Native Spanish Speakers

Students receive English as a Second Language instruction for forty-five minutes daily. The two monolingual Spanish speakers receive intensive instruction with the classroom teacher. Emphasis is placed upon pronunciation, sentence pattern drills, sentence completion drills, and vocabulary expansion.

English Language Instruction for Native English Speakers

The class is grouped according to ability and language proficiency. Instruction, which is closely integrated with the Reading program, is for ninety minutes daily. Capitalization, punctuation, spelling, and grammar are emphasized daily for approximately thirty minutes with each group. Approximately twenty-five to forty students receive English Language Arts and Reading instruction from the classroom teacher, and seven students go to the remedial Reading resource room and receive instruction from a teacher and aide who specialize in remedial Reading and Mathematics. Seven to twenty-five students are nonreaders, two of whom are receiving ESL instruction and are working on basic decoding skills and the development of oral language abilities. The classroom teacher uses Days and Deeds, Level 4, from the Laidlaw Series as the major Reading textbook. The nonreaders and ESL students are using teacher-made materials and audiovisuals in the remedial resource room. Time in Reading is spent on oral language practice and comprehension.

Spanish Language Instruction for Native-Spanish Speakers

Spanish Language Arts and Reading is taught in the Spanish resource room by a bilingual teacher. From this class three different groups have been formed. Language Arts concepts are reinforced in the classroom with the regular teacher for fifteen to thirty minutes daily at different times for the students who have not gone to the resource room. Each group receives instruction in the resource room with other students at the same Reading level. The Language Arts curriculum includes capitalization, punctuation, spelling, grammar, poetry, storytelling, and sharing and is integrated with the Reading segment. The major textbooks used in the resource room are from the Laidlaw and Santillana series at appropriate levels, Nuestra Lengua/Fichas de Ensenanza (Ediciones Anaya, Spain) and Mi Primera Fonetica/ A Phonics Workbook for Native Spanish Speakers (National Textbook Company). Emphasis is placed on oral language development (syntax, phonology, etc.), oral reading practice, comprehension, and Spanish-language usage (grammar).

Instructional Strategies for Grade 5, School D

The total class enrollment is thirty students. It is composed of three Dominicans, twenty-six Puerto Ricans, and one black. The class is team taught. The teachers and aide are all bilingual and of Hispanic descent.

English Language Instruction for Native-English Speakers

For Reading, the students are grouped according to language proficiency and ability, as determined by teacher observation and assessment. The major textbooks used are from the Harcourt Brace Series: Much Majesty and First Splendor. For the ten less-proficient English speakers, a phonics and skills handbook (adaptation of Lado English series and Ventures, Harcourt Brace) is used to supplement instruction. Emphasis is placed upon word games, language usage and structure, word recognition drills, dictionary practice, and the interpretation and sequencing of ideas to strengthen oral and written skills in Reading. The group of twenty students, who are more proficient in English, is involved in more abstract, creative tasks. The teacher emphasizes oral reading development and practice, comprehension, and the written self-expression by using student-developed books (bilingual), teacher-developed short stories on the board or on dittos, newspaper and magazine articles, vocabulary expansion drills, spelling exercises, and the Reading textbook and workbook.

The development of oral language abilities is emphasized through pronunciation, sentence pattern, grammatical structure, sentence completion, and vocabulary expansion drills. Concentration on English Language Arts concepts in spelling, grammar, and punctuation are included in class discussions, independent seat work, and Reading.

Spanish Language Instruction for Native-Spanish Speakers

Instruction for Spanish Language Arts and Reading is approximately sixty to seventy-five minutes daily. Based on teacher observation and assessment, students are grouped according to ability. The major textbooks and workbooks used are from the Laidlaw series (Nuestro Mundo Maravilloso and Aventuras Maravillosas). Teacher-prepared and locally developed materials supplement Spanish Language Arts instruction. The major focus of the Language Arts and Reading program is on developing oral reading and comprehension skills. Emphasis is placed on capitalization, punctuation, spelling, grammar, creative writing, poetry, and phonics. The teachers spent approximately twenty-five minutes daily on oral reading questions (interpretation and sequencing of ideas, reconciliation of facts), and twenty-five minutes on Language Arts concepts used in the Reading material. Subject matter is usually delivered by the teacher to the entire class in lecture form and is followed by seat work supervised by the group teacher and aide on an individualized basis.

Mathematics Instruction

The class is divided into two groups based on ability; however, within each group instruction is individualized most of the time. The approach used is bilingual. Approximately one hour weekly is spent on new concepts and group board work, ten minutes daily on review, and thirty-five minutes daily on application. The curriculum is based on district guidelines for fifth grades. The course content includes the principles of addition, subtraction, multiplication, division, new math, measurement, and geometry.

Cultural Component

The guidelines for the cultural component in two districts are the same for each of the four schools observed. The content areas covered are Art, History, Geography, holidays, Music, fables/legends, and famous people but are adapted according to each grade level. Teachers use the Board of Education Social Studies Curriculum Bulletin for regular Social Studies instruction, which takes place approximately 135 minutes weekly. The Social Studies material is presented using English as the language of instruction. In addition, La Ensenanza de Estudio Sociales en el Quinto Grado is used for instruction in culture and cultural heritage. The culture/heritage curriculum guide was developed by the bilingual program coordinator and curriculum specialist of two districts. The language of instruction for heritage is Spanish.

Approximately ninety minutes weekly are spent on culture. The curriculum is geared to the multiethnic composition of the classes which for the most includes Puerto Ricans, Dominicans, Cubans, and a small percentage of Mexican-Americans. To supplement instruction in culture/heritage, students do a lot of experience sharing and take class trips which focus on the particular culture being discussed. Lesson plans, textbooks, Spanish Reading, and discussion groups emphasize the Hispanic and non-Hispanic cultures. Reading and discussion groups focus upon the unique cultural aspects of both groups. The approach used to teach cultural heritage emerges at each grade level as students' needs and interests are developed.

Parent and Community Involvement

Approximately 70% of the parents confer at least once a year with the classroom teacher in either a formal or informal setting in their homes to discuss the academic progress of their child. About 1/3 of the parents attend project- and district-sponsored functions, such as open houses or class parties. Many parents participate by sending food with their children for these functions. The District Bilingual Office holds meetings to discuss the bilingual project at various times throughout the year and addresses questions, suggestions, and comments. The Bilingual Program also involves some of the parents on the Bilingual Parent Advisory Board, which charts the direction of the program in the ten targeted schools and evaluates its activities.

PROJECT 34

PROJECT INFORMATION

Project Context and Target Population

The project operates in all five schools in the District. There are forty-two bilingual classrooms (kindergarten through grade 5) with a total enrollment of 1,200 students. In the first year of funding, 1972, the project operated in three schools with a total of nine classrooms in kindergarten through grade 2. Each year one more grade level was added in each of the three schools. In 1975-76, two schools were added to the project bringing it to its current status.

Social and economic factors in the target population contribute to the implementation of a bilingual project. The District as a whole is 90% Mexican-American, 3% black, and 7% white non-Hispanic. The majority of the schools are 90% to 100% Mexican-American. It is estimated that 70% of the families are migrant farm workers. The families of the students in all five schools have about the same amount of mobility.

The community in which the project operates is in a rural farming area. Most of the families live in single units on small lots. The nearest large city is twenty-five miles away. While the dominant occupation of the families served by the schools is farm labor, a few semiskilled workers commute to the city to work in whatever jobs are available. The average gross annual income of the families is $2,000 to $3,000.

Instruction in kindergarten is in the student's dominant language. All teachers are bilingual and have bilingual aides. English oral language development is started in kindergarten. In the first grade, instruction is 70% in Spanish and 30% in English. Reading is in Spanish with English Reading introduced in the latter part of the school year. The students read in Spanish and English in the second grade. Instruction in the other subject areas is mainly in Spanish. It is expected that by the time the student enters the third grade, he/she will be able to function in a completely bilingual setting. Instruction is 50% in Spanish and 50% in English. This balance in maintained from this point on.

Mathematics, Science, and Social Studies are taught in both English and Spanish. Sometimes a pattern of alternate languages on alternate days is used. Lessons are not translated or repeated, but concepts are carried on from day to day, switching languages.

Spanish as a Second Language is offered for the very few English-dominant students.

Goals and Objectives

The primary goal of the bilingual program is to provide the target population with an educational program that will produce improvement in academic achievement and to develop within each participant pride in his/her native culture and a positive self-image. By allowing students to communicate freely in their dominant language while at school, the following project objectives are expected to be achieved:

- To enable a student to learn the basic educational concepts in his/her dominant language
- To simultaneously teach a student a second language
- To insure the student's positive self-concept through emphasis on his/her cultural heritage
- To make it possible for the student to maintain his/her native language

Project Staff

The total number of staff on the bilingual project is eighty-five. There are forty-two full-time classroom teachers, forty-two full-time teacher aides, and one project director. All are Hispanic and English/Spanish bilingual. Additional classroom support personnel (i.e., consultants, specialists, etc.) are district personnel whose services are available to the bilingual classrooms.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	4	4
Total number of questionnaires received	4	3
Highest earned college degree:		
No degree		3
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	4	
Teaching credential only		
M.A. or higher		
No response		
Type of state teaching credential held:		
Non-credentialed		2
Temporary, provisional, partial-fulfillment, or emergency		
Regular credential	2	
Bilingual-bicultural teaching credential	1	
No response	1	1
Years of full-time teaching experience:		
Less than 1 year		
1 year		
2 years	1	3
3 years	1	
4 years		
5-9 years		
10-19 years	1	
20-29 years	1	
30 or more years		
No response		1

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	1	1
1 year	1	
2 years	1	2
3 years	1	
4 years		
5 years		
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		1
6-15 quarter units (4-10 semester hours)	2	1
16-30 quarter units (11-20 semester hours)	2	
More than 30 quarter units (more than 20 semester hrs.)		
No college training in bilingual-bicultural		
No response		1
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less	1	
2-15 days	2	2
15-30 days	1	1
More than 30 days		
None		
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$172,000	
Other Federal and State	-0-	
Other (Private Foundation)	-0-	
TOTAL	$172,000	
• Per pupil		$143

In addition to the above, the following funds were designated for bilingual project schools:

School A

Federal and State	$22,532	
Other	-0-	
TOTAL	$22,532	
• Per pupil		$80
• Total per pupil additional funds for bilingual project participants		$223

School B

Federal and State	$132,000	
Other	-0-	
TOTAL	$132,000	
• Per Pupil		$188
• Total per pupil additional funds for bilingual project participants		$331

An approximate breakdown of funds from the various funding agencies are as follows: 60% from Title VII, 30% from Title I, and 10% from state and district funding. The district average per pupil cost is $600.

CLASSROOM INFORMATION

Impact Study Samples

Included in the Impact Study were eight classrooms, with one bilingual and one comparison class in each grade level 2 through 5. One of the five second grades in the project was included in the intensive study for classroom observation. One of five third-grade classes in the project was also included in the intensive sample. The following classroom descriptions were obtained through teacher interviews and classroom observations.

Instructional Strategies for Grade 2

Major Features

The bilingual class observed has an enrollment of thirty students, all of Mexican background. The classroom teacher is Hispanic and English/Spanish bilingual. One Hispanic, bilingual aide is assigned to this class on a full-time basis. Eleven students in this class also receive remedial Reading instruction with two other teachers. One remedial Reading teacher is white non-Hispanic and English monolingual; the other is Hispanic and bilingual.

English Language Instruction for Native-English Speakers

There are no native-English speakers in this class.

English Language Instruction for Native-Spanish Speakers

A total of eight hours per week are spent in English Language Arts (ELA). Activities in ELA correspond to those in Spanish Language Arts (SLA) with the exception of remedial Reading. Four hours are specifically spent in Reading with an additional 3 1/2 hours per week for those students in remedial Reading.

There is no grouping for written and oral work which includes English grammar and mechanics, spelling, creative writing, plays, poetry, choral reading, and storytelling. Instruction in these areas is directed to the entire class with frequent assignments for independent desk work. The teacher and aide circulate through the class providing individual instruction when needed by the students. The following texts are used for written and oral work: Basic Goals in Spelling; Listening, Reading, Talking, and Writing-Experiences in Language; and Writing our Language.

The class is divided into four groups for Reading. Nine students are in the high/medium group. The other three groups are considered low and also receive remedial Reading instruction. Students are assigned to a group based on the previous year's achievement and the teacher's assessment of the student's performance with second-grade level English material.

Each group receives instruction in phonics and reading comprehension in addition to oral reading. Both the teacher and the aide work with each group but not at the same time. Usually the teacher provides Reading and phonics instruction, and the aide works with the group for reading comprehension exercises. While one group works with the teacher and another group works with the aide, the other two groups are assigned independent work. The All By Myself (Southwest EDL Reading Series) is used for English reading.

Eleven of the nineteen students in the low groups also receive remedial Reading instruction on a daily basis. These students and the students in the regular second-grade class observed work with the same remedial Reading teachers. Instructional strategies and materials are the same as those previously described for the regular second-grade class.

Spanish Language Instruction for Native-Spanish Speakers

Spanish Language Arts instruction and content, including the grouping used for Reading, are the same as for English Language Arts. The main difference is that there is no Spanish remedial Reading. The time frames and the instructional strategies are the same. The BOLAR (Bilingual Oral Language Arts and Reading) Series is used for Reading, writing, and oral work. Spanish Language Arts is reinforced during the cultural component period. During this period the students' SLA skills are further developed through use in the various activities.

Mathematics Instruction

Mathematics instruction is in Spanish and English. Approximately forty-five minutes are spent on Mathematics each day. Ten to fifteen minutes are used in assigned work or teacher instruction. During the remaining thirty minutes, the teacher and the aide provide individual personalized instruction. The new math system is used in this class. Addition, subtraction, and introduction to fractions and geometry are included in the course content. Modern School Mathematics and Matematica para la Education Primaria-Libro 2 (Addison-Wesley) are the textbooks used. Teacher-produced exercise sheets and charts are also used. Other instructional materials include flash cards and games.

Cultural Component

The cultural component is taught as a separate unit. This class is taught by both the teacher and the aide three times each week for forty-five minutes. Students learn about holidays, famous people, history, geography, art, music, games, and legends of the Mexican and other Hispanic cultures. Frequently they read and/or write about what they are studying. Oral expression is accomplished through storytelling, sharing, and participation in games and songs. Besides the use of audiovisual equipment (i.e., slides, filmstrips, movies, and records), the BOLAR Series is used along with learning materials developed and produced by the teachers and teacher aides.

Instructional Strategies for Grade 3

Major Features

The third-grade bilingual class observed has a total enrollment of twenty students. All the students are of Mexican ethnic background. Eleven students are Spanish/English bilingual and nine are Spanish dominant. The teacher and the teacher's aide are both Hispanic and bilingual. The aide works full time in this class with 80% of her time spent in providing instruction. The other 20% of her time is divided equally between monitoring students and doing clerical work.

The instructional strategy is to alternate the language of instruction each week. One week English Language Arts is taught and all instruction for Mathematics, Science, Culture, and Social Studies is in English. The following week Spanish Language Arts is taught, and all instruction in the other subjects is in Spanish. No lesson is repeated; only the language used changes from week to week.

English Language Instruction for Native-English Speakers

There are no native-English speakers in this class.

English Language Instruction for Native-Spanish Speakers

A total of seven hours (every two weeks) are spent in English Language Arts. Approximately 3 1/2 hours are spent in written and oral work. The other 3 1/2 hours are specifically used for English Reading.

There is no permanent grouping for written and oral work which includes English grammar and mechanics, spelling, creative writing, plays, poetry, choral reading, and storytelling. Instruction in these areas is directed to the entire class with frequent assignments for independent work. During this time, the teacher and aide provide individual instruction. When feasible, students will be grouped according to tasks rather than ability.

Permanent grouping occurs for Reading. There are four groups: one high, one medium, and two low groups. Students are assigned to a group based on the teacher's observation of the student's performance on third-grade level Reading material during the first few weeks of school.

Each group receives instruction in phonics and reading comprehension in addition to oral reading. Both the teachers and the aide work with each group but not at the same time. Usually the teacher provides Reading and phonics instruction. The aide works with the students for Reading and comprehension and phonics exercises. Sometimes the aide works with each group for additional oral reading. Independent silent reading and/or written exercises are assigned during the Reading period to allow the teacher and aide to work with each group separately.

The main textbooks used are the Keys to Reading series (Economy Company), and the Spelling and English Program series (Laidlaw). The tutorette system (Audiotronics) is used for listening comprehension. It includes cassettes, ear phones, and worksheets. Various charts, games, puzzles, flash cards, and exercise sheets are used for additional instructional material.

Spanish Language Instruction for Native-Spanish Speakers

Seven hours (every two weeks) are spent in Spanish Language Arts. With the exception of the language used, activities and instructional strategies in SLA correspond to those in English Language Arts. Grouping for Spanish Reading is the same as for English Reading; however, there are fewer students in the low group since there is better comprehension of Spanish.

Textbooks and instructional material for SLA include the Lengua Española series, El Nuevo Sembrador series, Texto de Unidades e Idacticas, Diploma-Primer Curso, and the Tutorette System with Spanish tapes. As in English Language Arts, various charts, games, puzzles, flash cards, and exercise sheets are used for additional instructional material in SLA.

Spanish Language Instruction for Native-English Speakers

There are no native-English speakers in this class.

Mathematics Instruction

Mathematics instruction is in English and Spanish according to the plan as discussed in the Major Features section. Approximately forty-five minutes are spent on Mathematics each day. The first ten or fifteen minutes of class time are spent in assigning work or teacher instruction. During the remaining thirty minutes, the teacher and the aide provide instruction for each student as needed.

Addition, subtraction, multiplication, division, fractions, measurement, and geometry are included in the course content. The students are also exposed to the new math system. Matematica para la Educación

Primaria - Libro 3 (Fondo Educativo Interamericano, S.A.) and Investigating School Mathematics are the main textbooks used. Additional instructional materials, in English and in Spanish, include flash cards, charts, and exercise sheets.

Cultural Component

The cultural component is combined with Social Studies. Instruction is in English and Spanish according to the plan discussed in the Major Features section. While the course content is regular for this grade level, Mexican and other Hispanic cultures are emphasized. Students learn about holidays, famous people, History, Geography, Art, Music, games, and legends as they relate to the Hispanic culture.

Both the teacher and the aide have developed and produced instructional material for the cultural component. These include charts, displays, and exercise sheets. The Spanish Language Arts textbooks are also used for the cultural component.

Parent and Community Involvement

Being located in a small community, the schools are a focal point with much parental input in the decision-making process in school affairs. Parental contact is maintained through the teachers and principals. The district policy is to maintain open and direct communication with parents. Parents are encouraged to attend and to participate in the Parent Teacher Association and school board meetings. Most parental and community input concerning all matters is at this level. Direct parental involvement in the classroom usually is at open houses, parent conferences, and special class activities such as parties and field trips.

PROJECT 35

PROJECT INFORMATION

Project Context and Target Population

Project 35 began in 1972. The District is located in a small rural town with a population of 5,000 to 6,000 inhabitants. The town is situated thirty miles from a large city and approximately eight miles from a large university.

The District is composed of five different schools serving a total enrollment of approximately 1,692 students. These five schools include School A, which is basically a kindergarten school; School B, which serves grades 1 through 5; School C, an elementary school; School D, a junior high school serving grades 6 through 8; and School E, the high school.

Project 35 serves two elementary schools and the local junior high school where the sixth grade is located. Combined, there is a total of thirteen equivalency classrooms serving a total of 290 students. The term "equivalency classrooms" is used here for designating open ungraded classrooms. There exist no identifiable classrooms per se. An open classroom with a team-teaching approach is employed, and student schedules vary by section for kindergarten through grade 6.

The District has operated a bilingual program under Title VII for the past four years (1972-76). It has also initiated its own locally funded bilingual-bicultural program in the 1971-72 school year. The District's only other elementary school, which has an enrollment of approximately 105 (half of whom are non-English-dominant students), started a bilingual/bicultural program for kindergarten through grade 2 in the 1975-76 school year. The expenses for this program were paid from local funds.

The AIR study sample consisted of bilingual classrooms from grades 2 through 6. These are located at School B with the exception of the sixth grade which is housed at the adjacent junior high school, School D.

From 50% to 74% of the county population is of limited English-speaking ability. Approximately 70% of the students in the elementary school (School B) chosen for the AIR study sample are of Mexican descent, and about 30% are of white non-Hispanic descent. Figures quoted in the project proposal state that approximately 52% of the students within the District came from families whose dominant language is not English (57% at School B). According to the principal, only about 20% of the school's 70% Mexican-American pupil population come from families who are Spanish monolingual; the rest possess varying degrees of bilingualism.

The wage-earners in the District are mostly semiskilled and unskilled workers. Most of the semiskilled workers who live in the town hold jobs in the nearby large city or the university town. The town offers jobs mostly in construction work and at a chemical plant that manufactures plastics, where most of the town's Mexican-American community is employed. The average gross annual income ranges from approximately $8,000 to $12,000.

At School B, slightly more than half of the school student population is considered to come from low-income families. Of that total, approximately 92% are of non-English-dominant background and 8% are of English-dominant background. The families who live in the project school attendance areas are fairly settled with about a 10% mobility rate in and out of school.

Standardized tests such as the Pictorial Test of Bilingualism and Language Dominance (Nelson, Fellner, Norrell) and locally developed tests and inventories as well as teacher observation are used in assessing and identifying students in need of the services offered by the bilingual project. Students can be matriculated in the program upon written permission or request. Students who are of English-dominant background may also enter the program upon parental request. However, students who show a need receive preferential placement.

Goals and/or Objectives

The bilingual project lists several principal component goals, objectives, and measurable objectives for each grade level from kindergarten through grade 6. The project itself has a set of short-term objectives and long-range objectives in four different areas. The long-range objectives include the following:

Instructional Component

- To establish both Spanish and English as media for instruction
- To assist the student of limited English-speaking ability to keep pace with other students
- To develop a positive self-concept in the student through a culturally relevant curriculum

Staff Development Component

- To develop teacher awareness of the need for bilingual education thereby changing the attitude that English should be the only medium of instruction
- To develop a team of professionals capable of teaching in both English and Spanish through collegiate training leading toward a master's degree in bilingual/bicultural education
- To develop a group of paraprofessionals who with college training can return to the District with a bachelor's degree and bilingual/bicultural certification

Parent and Community Involvement Component

- To make the parents and community aware of the existence of bilingual education programs
- To involve or incorporate the parents into the learning process of the student

Materials Acquisition Component

- To acquire and develop materials needed in order to accomplish established objectives

Project Staff

The project staff for specific program considerations involves a total of twelve teachers and six aides (one for each section). Of the twelve teachers, nine are of Hispanic descent, and three are of white non-Hispanic descent while all six aides are bilingual Hispanics. The aides are funded directly by Title VII while the teachers are funded by the state. However, the state does not fund the teachers for time spent on inservice training for education or fund substitutes for such events. Title VII, then, provides funding for designated teacher inservice activities. The following table shows the way in which these twelve teacher-teams are distributed by grade for specific program instruction.

Table 1.
TEACHER-TEAM DISTRIBUTION

Grade	Teachers
K	1 bilingual, 1 monolingual English
1	2 bilinguals
2	2 bilinguals
3	1 bilingual, 1 monolingual English
4	1 bilingual, 1 monolingual English
5*	1 bilingual
6*	1 bilingual

* No team is used here as far as bilingual instruction is concerned.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	10	6
Total number of questionnaires received	8	5
Highest earned college degree:		
No degree		4
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	7	
Teaching credential only		1
M.A. or higher	1	
No response		
Type of state teaching credential held:		
Non-credentialed		4
Temporary, provisional, partial-fulfillment, or emergency		1
Regular credential	6	
Bilingual-bicultural teaching credential	2	
No response		
Years of full-time teaching experience:		
Less than 1 year		
1 year		1
2 years	1	
3 years		
4 years	2	1
5-9 years	3	3
10-19 years	1	
20-29 years	1	
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year	1	
1 year	1	
2 years	2	1
3 years	1	1
4 years	2	2
5 years	1	1
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)		2
6-15 quarter units (4-10 semester hours)	3	1
16-30 quarter units (11-20 semester hours)		
More than 30 quarter units (more than 20 semester hrs.)	3	
No college training in bilingual-bicultural	2	2
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less		
2-15 days	5	3
15-30 days	1	
More than 30 days	1	2
None		
No response	1	

In addition to the teachers who work on the bilingual project, there are a number of other teachers and aides with whom the students work. The total number of staff each student is exposed to is contingent upon that student's grouping schedule. For instance, in the third grade, four groups from the bilingual sections may be assigned to either of their bilingual team teachers for English Reading, and the rest of the bilingual students are distributed between two other third-grade teachers. All students work daily with an Art teacher, a Music teacher, and a Physical Education teacher in addition to Title I aides. The District also provides two learning disabilities teachers (both white non-Hispanic) and three remedial Reading teachers (two Hispanic and one white non-Hispanic) who are available by need to participants in the bilingual project. School B's library and media center are run by a full-time Title I aide under the supervision of the high school librarian. (The high school and junior high are on the same school grounds.)

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$84,680	
Other Federal and State	-0-	
Other	-0-	
TOTAL	$84,680	
• Per pupil		$292.00

In addition to the above, the following funds were designated for bilingual project schools:

School B

Federal and State *	
Other *	
TOTAL *	
• Per pupil	$48.28
• Total per pupil additional funds for bilingual project participants	$340.28

---

* The total school district Title I grant is $105,000, of which $14,000 is allocated to the schools in the bilingual education project. Since there are 290 students involved in bilingual education here, this comes to $48.28 from Title I per pupil.

Other project staff directly funded by Title VII include the Project Director, one school/community liaison, and one full-time secretary. Part-time contributions are made from an evaluator, a bookkeeper, and various professional consultants.

CLASSROOM INFORMATION

Major Features of Classrooms Observed

School B (grades 1 through 5) and School A (kindergarten) operate under an open-classroom, team-teaching system and plan to incorporate a nongraded approach in the near future. The sixth grade operates under a junior high school departmentalized system. The main overall objective of the entire program is to provide bilingual education for all students without actually having to separate them for any substantial length of time. The project provides for heterogeneous grouping representing both language-dominance and ethnic backgrounds. Students in the bilingual project are in mixed homerooms and come together as a "bilingual class" for instruction relevant to their designated bilingual program by grade level.

Each grade level at School B is divided into two sections (AB and CD) according to ability. The AB sections range from high/enrichment to average/high abilities, and the CD sections range from average to low/remedial abilities. The open classroom area is approximately five years old, bright and colorfully decorated and in excellent physical condition. A goal of the district teaching staff is to instill in the students a sense of pride and responsibility for their school. The school furnishings, supplies, and wall-to-wall carpeting were in excellent and clean condition.

The project treats bilingual education not only as a necessity but as an educational enrichment as well. When either the Spanish-dominant or the English-dominant student attains proficiency in the designated second language, he/she remains in the project. The sixth-graders receive most of their daily instruction in English but come together for Spanish Language Arts with the bilingual teacher.

Most bilingual sections are assigned to teams of two teachers. An attempt is made to compose each team of one bilingual and one English-monolingual teacher. The first and second grades use teams of three teachers because of the greater number of program participants in these grades.

Art, Music, and Physical Education are taught to all students on a daily basis by special teachers. All teachers at each grade level share the responsibility for teaching English Reading. For example, the entire fourth-grade class is ability-grouped into eight different small sections regardless of whether the students are participants in the bilingual project. There are four fourth-grade teachers (bilingual team and non-bilingual team), and therefore each teacher is assigned two English Reading groups.

The AB and CD sections at School B are further divided into two sections each (AB_1, AB_2, CD_1, CD_2,) which are instructed alternately by the bilingual teacher and the English monolingual team teacher. These four sections are further subdivided into smaller groups between each teacher and whatever paraprofessional (aide, student, teacher, or junior college assistant) is assigned to that particular teacher. The elementary program has been recently selected by the State Education Agency as a demonstration school for outstanding practices in individualizing instruction. Many other school districts are visiting the project classrooms, and some plan to implement similar projects next year.

Another important aspect of the project is the close relationship it maintains with the nearby university in the area of staff development. The university is one of the first to offer a bilingual teacher-training program in the state. It presently offers programs in the area of bilingual/bicultural education leading toward bachelor through doctoral degrees. There are presently fifteen professionals in the District enrolled in courses leading toward a master's degree in Bilingual/Bicultural Education and nine paraprofessionals enrolled in courses leading toward a bachelor of science degree and bilingual/bicultural certification. The School B principal, along with other English-monolingual staff were currently enrolled in Spanish courses at the time of visitation. It is anticipated that at least 50% of the elementary school staff in the future will be bilingual.

Adjacent to the teachers' lunchroom, there is a teachers' workroom equipped with a large resource library which is utilized for team meetings and planning periods. The enrichment courses (i.e. music, art, physical education) are planned and taught by specialists. It was indicated that a large number of students at School B play a musical instrument of some sort (including the guitar) and that all students are taught to read music.

Impact Study Samples

Because none of these classrooms is wholly bilingual, a random selection of students participating in the program was made. These students were pulled from different bilingual sections at each grade level and tested in separate classrooms. Since the number of participants varied greatly among grades 2 through 6, it was decided to sample a number representative of an average class size per level. Consequently, it was decided to test one-third of the second-graders, one-half of the third-, fourth-, and fifth-graders, and all of the sixth-graders. Accordingly, twenty-six out of fifty-nine second graders, twenty-one out of forty-two third-graders, twenty-three out of forty-four fourth-graders, seventeen out of thirty-two fifth-graders, and nineteen out of nineteen sixth-graders were randomly selected for AIR testing purposes.

The students tested in grades three and four were further randomly selected for intensive study purposes. The following is a description of the educational program these two groups receive.

Instructional Strategies for Grade 3

English Language Instruction for Native-English and Native-Spanish Speakers

The entire third grade is broken up into eight different Reading groups (AB_1 through AB_4, and CD_1 through CD_4) according to ability. The four third-grade teachers are each responsible for teaching two English Reading groups daily. Each group meets for one hour daily, and all groups use the Harcourt Brace Jovanovich Reading Series, Levels 4 to 8. The criteria for designating the grouping pattern are derived from the basal standardized test results and from teacher observation. However, the AB/CD sections are already ability-grouped on a larger scale. The eight Reading groups range from high to low/remedial abilities.

Out of those students randomly selected for testing in part of the project, the bilingual teacher has six students in her high-ability group (eleven in the actual group) and four students in her low-ability group (eleven in the actual group also). Her English monolingual team teacher instructs two of the students tested in an average-ability group and three in the low-remedial group. There are also six other students that were tested in the remaining three average/low groups which are taught by the other English monolingual teachers.

Phonics and other specific Reading skills are taught in the Reading groups while library skills are taught to the entire class once a week (thirty minutes) during the Mathematics drill period. Out of each hour devoted to Reading, each group spends approximately twenty minutes on direct instruction and about forty minutes on independent work assignments. Groups can be rearranged within their prospective AB/CD sections upon unit test results based on ability and need.

Aside from the English Reading period, the students receive English Language Arts instruction twice a week for thirty minutes from the English monolingual team teacher in addition to thirty minutes of spelling instruction every other day (five times every two weeks). During the Language Arts period, the team teacher covers the skills of punctuation, spelling, grammar, and creative writing. Spelling is taught as a separate class by the same teacher. With English Language Arts and spelling combined, the students spend approximately an hour weekly on independent study and another hour in direct instruction time. One student with learning disabilities receives individualized instruction in these areas. Instruction is given in groups (AB/CD). Each section comprises a class of about twenty-one pupils. The textbooks used are Power to Spell 3 (Houghton Mifflin Co.) and Adventures in English (Laidlaw).

Spanish Language Instruction for Native-Spanish and Native-English Speakers

Spanish Reading is taught by the bilingual team teacher and the bilingual aide for thirty minutes every other day for each AB/CD section. While the English monolingual teacher teaches one section spelling, the bilingual teacher teaches the other section Spanish Reading. They alternate sections every other day. When in Spanish Reading, the aide and the teacher subdivide each section into two smaller groups, a bilingual group and an English-dominant group. They also alternate the subgroups for instructional purposes. In the bilingual sections, the Spanish readers in Section AB were using the textbook, Libro Segundo de Lectura (La Escuela Nueva) and Lengua Española 2 (EDIME). The Spanish readers in section CD were using Libro Primero de lectura and Lengua Española 2.

The English-dominant subgroups within each section receive Spanish as a Second Language (SSL) instruction during the Spanish Reading period and additional vocabulary drills, exercises, and audiovisual instruction through a bilingual or direct-translation approach.

The students in each section receive approximately twenty minutes of instruction each time they meet and work independently for about ten minutes. The skills of punctuation, spelling, and grammar are incorporated into the above time allocation within the Reading lesson.

Mathematics Instruction

The bilingual component in the third grade is broken up into four different Mathematics groups. The bilingual teacher and aide are responsible for instructing two thirty-minute sections daily, and the monolingual team teacher instructs the remaining two groups. Essentially, Section AB is broken up into AB_1 and AB_2. Section CD is also broken up into CD_1 and CD_2. Out of the students tested, there are seven in the high-ability (AB_1) group, two in medium/high-ability (AB_2) group, six in the average-ability (CD_1) group, and six in the low-ability (CD_2) group. One student with learning disabilities receives individualized instruction with the low-ability group by the English monolingual teacher. During the Mathematics class, the concepts and skills of addition, subtraction, multiplication, division, ratios, and measurements are taught by using modern mathematical concepts and the textbook Modern Mathematics (Silver Burdett). The students can change groups within their section depending upon ability and need on a unit basis.

In addition to the regular Mathematics class, where concept learning is stressed, each group receives thirty minutes of Mathematics drill practice four times a week. Mathematical games and drill exercises are used in this class to reinforce the concepts learned in the regular Mathematics class. The bilingual students receive the Mathematics drill class in Spanish two of the four times weekly from the bilingual teacher and aide. With the Mathematics class and Mathematics drill combined, the students receive approximately two hours of Mathematics independent work and about 2 1/2 hours of direct instruction weekly.

Cultural Component

Spanish culture is taught by the bilingual teacher and aide to one section while the team teacher teaches English Language Arts to the other. They alternate sections every other day. Thus, each section receives the above class twice a week. One day each week (Friday) is spent in a combined audiovisual activity. The bilingual teacher covers everything from art and cooking to famous people within the cultural component. At times, she subdivides the sections according to language dominance. On these occasions, the aide instructs the English-dominant students in another room, and the bilinguals remain with the teacher for a Spanish-language cultural experience. Each section receives thirty minutes of Spanish culture twice a week.

Instructional Strategies for Grade 4

English Language Instruction for Native-English and Native-Spanish Speakers

The entire fourth grade at School B is also broken up into eight Reading groups, regardless of whether the students are in the bilingual project, ranging from a high/enrichment level to a third-grade remedial level. The four fourth-grade teachers are each responsible for teaching two sections of English Reading instruction on a daily basis. Each group meets for sixty minutes four times a week (four hours), and for one hour of library work also on a weekly basis. Since the students were randomly selected from heterogeneous homerooms for testing, the twenty-three fourth-graders included in the Impact Study come from seven different Reading groups.

Four groups are of high Reading ability (one of which is considered an enrichment group). All four high-ability groups were reading at some point in Kaleidoscope (Houghton-Mifflin Co.) at the time of visitation.

The main differences among the high-ability groups are variations in reading speed.

Aside from the high-ability groups, there is an average, a low (3.2) level, a fourth-grade remedial, and a third-grade remedial group. There are two students in the 3.2 level, two in the fourth-grade remedial, and one in the third-grade remedial section that were selected for AIR testing. At the time of visitation, the 3.2 level was currently reading the book Fiesta (MaGinnitie Co.) and the third-grade remedial group was reading the first part of Seeking Adventure.

Most groups spend an average of twenty-five minutes on direct Reading instruction and about thirty-five minutes on independent seat work that is directly related to their Reading assignment. An average teacher's Reading section consists of approximately ten students. The fourth-grade bilingual teacher teaches a high-ability Reading group which consists of thirteen pupils. She also teaches a low-ability group which consists of eight pupils. In these two particular groups, a Title VII bilingual aide is present, and thus these groups are further subdivided into smaller groups. While some are reading with the teacher, others are involved with seat work. The English monolingual team teacher is responsible for teaching one high-ability group and the third-grade remedial fourth-grade section. This teacher usually receives extra help, though not constantly throughout the year, from either a junior college assistant or a student teacher. Therefore, she also is able to individualize and divide her groups when necessary for instruction. The remaining two fourth-grade teachers generally teach alone; however, they subdivide their sections into smaller units when necessary for instructional purposes.

Instruction within these Reading groups is given as though they were an entire class, but the groups are broken up into even smaller units when necessary.

English Language Arts is taught separately from the Reading period to the fourth-grade bilingual participants (AB and CD) by the English monolingual team teacher. While she is working with one section, the bilingual teacher teaches Spanish Language Arts to the other section. They alternate groups every other day. Thus, each AB/CD group receives

English Language Arts five times every two weeks. Each period is approximately thirty-five to forty minutes long. Each bilingual AB/CD section consists of approximately twenty-one students.

The teacher uses the books Exploring in English (Laidlaw), Our Language Today (American Book Co.), and Power to Spell 4 (Houghton-Mifflin Co.) in teaching English Language Arts. The skills covered include capitalization, punctuation, spelling, grammar, creative writing, and non-fictional writing. She employs a combination of teaching methods which include entire-class instruction, individualized instruction, and grouping by need. Often she splits the sections into small groups and alternates teaching with the student-teacher.

Each week for at least ten minutes, the students must write a book report and then share it with the class. Drama and poetry skills are taught only within the Reading groups. The criteria for designating the grouping arrangement are based upon the previous year's arrangement with modifications made on the basis of teacher observations and scores on the Gates-MacGinitie Reading Test. Students rarely regroup during the school year.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

As mentioned in the above section, the bilingual teacher teaches Spanish Language Arts while the team teacher instructs English Language Arts in the adjacent learning station. The AB group (twenty-one students) and the CD group (twenty-two students), are instructed alternately and therefore receive thirty-five minutes of Spanish Language Arts every other day. During the class period, each group is divided into two sections according to language dominance and Spanish Reading ability. All instruction is given through a small-group approach with the exception of library work which is done on an individual basis. Group AB is broken up into AB_1 and AB_2 sections. AB_1 consists of thirteen bilingual students who are of high Spanish Reading ability. AB_2 consists of eight high-ability students who are predominantly English dominant. They receive an SSL program while AB_1 receives a Spanish Language Arts program. The bilingual teacher and the Title VII aide alternate these two sections for instructional purposes.

The CD group is broken up into CD_1 and CD_2 sections. CD_1 consists of eleven Hispanic high-ability Spanish readers (they are considered to be average-ability English readers). Section CD_2 consists of eleven Hispanic students who are of low Spanish Reading ability.

Each group spends approximately forty-five minutes a week in a combination of Reading instruction and reading independent seatwork. An average of twenty minutes weekly is devoted to the development of Spanish oral language arts covering the skills of drama, skits (puppetry), storytelling, choral reading, and sharing.

Written Language Arts is covered for approximately forty-five minutes weekly by each group. About twenty minutes are spent on group instruction by the teacher and about twenty-five minutes on independent seat work on a weekly basis. The areas covered in Spanish Language Arts include capitalization, punctuation, spelling, grammar, and creative writing. The amount of independent time spent on their language workbook overlaps with the independent study time indicated in Spanish Reading.

The top Spanish Reading groups (AB_1 and CD_1) were using the textbook Libro De Lectura (La Escuela Nueva) and were almost finished with Del Campo al Pueblo (Laidlaw) at the time of visitation. The lower Spanish ability groups (AB_2 and CD_2) were reading the textbook, Nuestros Amigos (Laidlaw) and using Diccionario Del Lenguaje Usual (Santillana) at the time of visitation. All sections were using the workbook Lengua Espanola 3 (EDIME, Spain).

The students within each section of AB or CD have the opportunity to regroup within their main group at the end of each six weeks according to ability and need based on unit test and teacher observation.

Mathematics Instruction

Mathematics is taught on an individualized contract system with grouping according to need by the two team teachers. Each AB/CD section meets for approximately forty minutes daily (five times a week). Each section is further divided for instruction (by the teaching team) into smaller groups within each section depending on mastery levels. The students can move between the two groups within each section depending on their specific skill needs. The bilingual team teacher is assisted by the bilingual aide, and the monolingual team teacher is often assisted by a junior college assistant or student teacher. During the forty minute Mathematics class, approximately thirty minutes are spent on independent work, and about ten minutes are spent on direct instruction.

The students regroup at least bimonthly within their respective AB/CD sections depending upon their mastery level. The teachers alternate groups informally every few weeks. The language used for instruction in the groups taught by the English monolingual teacher is English while both languages are allowed and used freely in the groups taught by the bilingual teacher.

The basic skills covered include addition, subtraction, multiplication, and dividison. The basic textbook used is Exploring Elementary Mathematics (Holt, Rinehart & Winston, Inc.)

Cultural Component

Hispanic culture is taught as a series of special Social Studies units. During one summer, a group of bilingual teachers developed a Hispanic cultural curriculum which is made available to all teachers. When the cultural component is taught as a unit, the bilingual team teacher emphasizes Mexican culture, while the English monolingual teacher emphasizes the geographical and historical aspects. Each teacher spends thirty minutes with each section and then alternates groups. Thus, each AB/CD section receives one hour of cultural studies a week.

Parent and Community Involvement

During the 1975-76 school year, the bilingual project kept the parents and community informed of project functions and activities by means of newspaper, radio, and project and Advisory Committee newsletters.

Much of the parent involvement in the project is realized through the Bilingual Parent Advisory Committee. Free baby-sitting and refreshments are provided at these bimonthly meetings. Out of the third- and fourth-grade bilingual sections observed in the intensive sample, the teachers estimated that from 30% to 40% of the parents in their bilingual sections attend regularly. Once a month, each bilingual grade level takes turns putting on a performance for the parents. Usually, 90% of that section's parents come if their child is involved. The mothers from the Bilingual Parent Advisory Committee visit the bilingual sections now and then, and at least 75% of the parents whose children participate in the project come to the annual open house. Most of the parents in the bilingual sections will come to have a conference with the teachers if specifically asked to come. Generally, this is done if a specific problem arises. Several others come of their own accord to discuss matters of concern with the teachers.

Aside from individual conferences, the teachers see many of the parents at the Bilingual PTA. An average of eight different parents are asked to participate by helping to organize and provide food for class parties by grade level throughout the year. Also, every Friday morning, each grade level takes turns putting on a performance (play, skit, etc.) for the entire elementary program, and parents are welcome to attend.

According to the teacher interviewed, 40% of the parents of third-grade project students are involved in the monthly Bilingual Parent Advisory Committee. At least four parents participate in field trip activities each semester, and eight parents help organize and supervise class parties on a yearly basis. The teacher had formally met with at least five parents for specific student conferences at the time of visitation; however, she informally sees many others at the Bilingual PTA and other school functions. At least 75% come to the annual school open house.

Parent involvement for the fourth-grade classroom is mostly realized through active participation in the Bilingual Parent Advisory Committee. According to the bilingual teacher, from twenty to thirty parents in the combined AB/CD section participate in the monthly meetings. At the time of visitation, the bilingual teacher had met with at least ten different parents for specific student conferences but had met the rest informally at either the Bilingual PTA or at the annual school open house (75% usually attend). At least eight different parents are asked to participate throughout the year in organizing class parties, and at least six parents will come about five times a year for special lectures and demonstrations. The teacher indicates that there is a very good parent turnout for evening performances and programs such as the Christmas production.

PROJECT 36

PROJECT INFORMATION

Project Context and Target Population

Project 36 is located in a rural city approximately fifty miles from a large metropolitan city and has a population of about 13,300. Approximately 3,300 students attend public schools, and approximately 800 attend private schools. The District's public schools include four elementary schools, one junior high school, and one high school. Approximately 10% of the total school district enrollment is of Hispanic descent while 8% of the city's total population is of Hispanic background. The Spanish-surnamed population in the city has increased by 81% since 1969.

Two elementary schools and one junior high (where the sixth grade is located) participate in the program. The Spanish-surnamed enrollment is estimated to be 21% at one elementary school and 19% at the other. The junior high school Spanish-surnamed population is estimated to be 8%.

Most of the families served by the two elementary schools are employed in semiskilled work, predominantly factory production (especially garment industries). These families have an average annual income of approximately $7,000 to $8,000. However, many families have unemployed parents and have annual incomes of approximately $4,000 to $6,000 including Social Service benefits. The mobility rate is about 10%.

There were 252 pupils in the three schools participating in the bilingual project during the 1975-76 school year. One elementary school consists primarily of self-contained classrooms with some team-teaching while the other operates under a team-teaching, non-graded approach. The Project Director indicated that even after the students gain proficiency in both languages they remain in the program.

The school year 1972-73 marked the implementation of a Title VII, non-graded, Early Childhood Bilingual Program (kindergarten through grade 3) in two elementary schools. However, an English as a Second Language (ESL) program was established at one of the elementary schools as early as the 1969-70 school year, and in the following year a preliminary non-graded early childhood bilingual approach was initiated in one kindergarten with local and Title I funds. In the 1971-72 school year, the program was expanded to include one hundred students and was funded by a combination of Title I and local tax levy funds.

Goals and Objectives

The bilingual project has various five-year goals in the areas of instruction, staff development, parent/community involvement, and curriculum development. However, the following are the overall long-term goals:

- After being in the project for five years, both English- and Spanish-dominant students will acquire functional bilingualism as a result of second-language instruction and continued development of the mother tongue.
- Students in the project will show an increase in cultural awareness and knowledge of biculturalism by participating in community- and classroom-sponsored cultural activities.
- Community participation will be instrumental in the planning, implementation, and evaluation of the current program to ensure relevancy to the community through the formation of a Bilingual Advisory Board.
- Parents will demonstrate their interest and support of the bilingual project by their participation in classroom activities and other project activities.
- The project will develop a bilingual, bicultural curriculum which meets the criteria prescribed by the state and the city's Board of Education.
- The project will provide curriculum and instruction for the Spanish-speaking students so that they will progress in their school work at a rate commensurate with that of the English-speaking students of comparable ability.
- The District will broaden the project each year, extending it upward into the junior high school so that a greater percentage of students from non-English-speaking environments will graduate from high school.

Project Staff

The project consists of the full-time Project Director and a secretary. Two full-time curriculum specialists and two full-time floating teachers are funded through Title VII. They are all bilingual Hispanics with the exception of one floating teacher and one curriculum specialist. Besides these, Title VII also funds eight bilingual Hispanic teacher aides who are considered to be part-time employees although they work thirty hours a week. Additional part-time staff funded by Title VII include two continuing education teachers, one project evaluator, one community/school liaison, and two professional consultants. All are bilingual Hispanics with the exception of the project evaluator and one consultant who are English-dominant white non-Hispanics. Also participating in the 1975-76 project were four practicum students from a nearby college and a university. There is also a part-time, Spanish-dominant volunteer who works regularly in the resource center.

There are nine full-time teachers, four of whom are non-Hispanic, participating in the project. They are paid by local district funds. Besides the staff already mentioned, the students participating in the bilingual project may also be instructed by four other teacher aides (funded by Title I), three remedial Reading teachers, and one ESL teacher at the junior high school. Title I funds are also used for the instruction of English remedial Reading and English as a Second Language (ESL). The school district provides a full-time English dominant, non-Hispanic psychologist who is available to all students.

The information of the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	6	5
Total number of questionnaires received	6	3
Highest earned college degree:		
No degree		2
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	3	
Teaching credential only		
M.A. or higher	3	
No response		1
Type of state teaching credential held:		
Non-credentialed		2
Temporary, provisional, partial-fulfillment, or emergency	2	
Regular credential	3	
Bilingual-bicultural teaching credential	1	
No response		1
Years of full-time teaching experience:		
Less than 1 year		2
1 year		
2 years		
3 years	2	
4 years	3	
5-9 years	1	
10-19 years		
20-29 years		
30 or more years		
No response		1

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year		2
1 year		
2 years		
3 years	4	1
4 years	2	
5 years		
More than 5 years		
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)	1	
6-15 quarter units (4-10 semester hours)	2	
16-30 quarter units (11-20 semester hours)	1	
More than 30 quarter units (more than 20 semester hrs.)	2	2
No college training in bilingual-bicultural		1
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less	1	
2-15 days	2	1
15-30 days	1	
More than 30 days	2	
None		1
No response		1

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$187,913
Other Federal and State	17,158
Other	-0-
TOTAL	$205,071

• Per pupil	$813.78

In addition to the above, the following funds were designated for bilingual project schools:

Federal and State	$182,755
Other	-0-
TOTAL	$182,755

• Per pupil	$57.11
• Total per pupil additional funds for bilingual project participants	$870.89

CLASSROOM INFORMATION

Impact Study Samples

Out of 1 1/2 classroom equivalency second grades in the project, one classroom equivalency was randomly selected for the AIR Impact Study and later, further selected for detailed observation in the intensive sample.

Instructional Strategies for Grade 2

Major Features

The classrooms selected were combination first and second grades. Only the students in the second-grade equivalency were tested and observed. They consisted of seventeen students coming from two different homerooms of which both are first- and second-grade combination classrooms. One homeroom consists of nine students of whom six are Hispanic and three are non-Hispanic. The second homeroom consists of eight students of whom six are Hispanic and two are non-Hispanic. Both teachers alternate groups of students with the same Spanish Language Arts teacher concurrently. Thus, the students in the second-grade equivalency come together at certain times of the day.

English Language Instruction for Native-English Speakers

Of the students tested, nine receive English Language Arts instruction. They are divided into three groups and receive instruction from their respective English-dominant homeroom teachers. Two of the students tested are in Reading Group A which was reading at the 3.1 level in the book, Widening Circles (Harcourt Brace Jovanovich) at the time of observation. Group B consists of one student reading at the first-grade level in the book, Uptown, Downtown, from the Bank Street series. These two groups are taught by both entire-class and small-group methods. Punctuation, spelling, grammar, written mechanics, storytelling, and library work are taught by an entire-class method while phonics and Reading comprehension is taught in small groups. Approximately one hour of written Language Arts instruction is given on a weekly basis, and about two hours are spent weekly on independent written Language Arts work.

Poetry is taught within the Reading groups, and storytelling is taught on an entire-class basis in the realm of oral Language Arts. Approximately half an hour is spent weekly on these subjects.

The Reading groups receive direct Reading instruction five days a week for about twenty-five minutes daily. Approximately sixty to ninety minutes are also spent daily on independent Reading seat work. The groups are rarely reassigned, and the criteria for designating the grouping arrangements are based upon the previous year's level and teacher observation.

The last English Reading group, Group C, is taught by another homeroom teacher and consists of six students. Three of the students are English monolinguals and three are bilingual. Written Language Arts consists of spelling, grammar, mechanics, and creative and non-fictional writing. Oral Language Arts consists of dramatic arts, poetry, storytelling, and sharing skills. Reading consists of phonics and Reading comprehension skills. All instruction in the above areas is given in small groups. The amount of time spent on written and oral Language Arts instruction and independent study is the same as that spent by Groups A and B. Approximately 1 1/2 hours are spent weekly on the oral Language Arts skills, and approximately 2 1/2 hours are spent in direct Reading instruction as well as another 2 1/2 hours in reading independent seat work. The group was reading the textbook, World of Surprises (Harcourt Brace Jovanovich), at the time of visitation. The criteria for grouping are the same as those used for Groups A and B.

English Language Instruction for Native-Spanish Speakers

Of the students tested, eight native-Spanish speakers receive English as a Second Language instruction from their homeroom teachers. One teacher has a group of three students at the second-grade level and one student from the first-grade level. The second teacher has a group of five students. The use of Spanish is allowed only when necessary during ESL instruction, and a total-immersion-in-English approach is used most of the time. Basic drills on pronunciation, sentence pattern, and sentence completion were used, and emphasis was placed on vocabulary building. Conversation and dialogue techniques are also often used. Second-language instruction is given daily for half an hour.

Spanish Language Instruction for Native-Spanish Speakers

Of the students tested, nine receive Spanish Language Arts instruction for 1 1/2 hours on a daily basis. Instruction is given by a special Spanish Language Arts teacher who is bilingual but not of Hispanic descent and by the bilingual Hispanic aides from both homerooms tested. There are six groups in the "Spanish room" at one time. The groups rotate between teachers and aides and come and go at different times during the morning. While Spanish Language Arts is taught, the remaining English-dominant students are in English Language Arts classrooms. The skills covered in Spanish written Language Arts are punctuation, spelling, grammar, creative writing, and written mechanics. Instruction is given within the small groups. Oral Spanish Language Arts covers the areas of storytelling and sharing. Approximately ten minutes are devoted to SLA on a weekly basis using an entire-class approach. Reading covers the skills of phonics, Reading comprehension, and library work and is taught within the small groups. The criteria for grouping are not based on ability since the grouping arrangement depends on the homeroom schedule. Thus, the groups never change throughout the year.

Of the students tested, six students come from one homeroom and three from the second homeroom. Both groups were using the textbooks La Ciudad and Libro de Actividades (Santillana) at the time of observation. Each group receives approximately 1 1/4 hours a week of direct written Language Arts instruction and spends an equal amount of time on independent study. Reading instruction is received by each group for about twenty minutes daily. Forty minutes daily are spent on independent Reading tasks within the groups with direct or indirect supervision from the bilingual aides.

Spanish Language Instruction for Native-English Speakers

Of the group tested, six students receive Spanish as a Second Language instruction for half an hour daily. Four students receive Spanish as a Second Language (SSL) from the special Spanish Language Arts teacher. These students are of Hispanic descent but are English dominant. The other two students are English monolingual non-Hispanics and receive SSL instruction from another bilingual, non-Hispanic teacher. The use of English is allowed only when necessary, and in the Hispanic group a total-immersion-in-Spanish approach is used. In this group, the main emphasis is on conversational and open-discussion skills. Vocabulary building is always emphasized and drill techniques are often used. The second group, all non-Hispanics, spends the majority of the time in introductory oral Spanish skills.

Mathematics Instruction

All students who are at the second-grade equivalency level in Mathematics come together for Mathematics instruction with one of the homeroom teachers. Instruction is by an entire-class method with some grouping by need according to skill levels. The class consists of seventeen students with second-grade equivalency in Mathematics. A new math approach is used, and the textbook is from Addison-Wesley. Approximately forty-five minutes are devoted to Mathematics daily. Of that time, approximately twenty minutes are spent on direct instruction, and the remaining twenty-five minutes are spent on independent seat work assignments. The language used for instruction is English with some Spanish when necessary. The groups are arranged by need and change accordingly.

Cultural Component

A cultural component is not taught as a separate class, but rather is incorporated informally into either the Social Studies or Spanish curriculum. The subjects covered include Art, cooking, fables, games, Geography, History, holidays, music, and famous people. Both Spanish and English are used, and homeroom teachers, aides, and the Spanish Language Arts teacher participate. The amount of time devoted to Hispanic culture topics is flexible and variable.

Parent and Community Involvement

During the 1975-76 school year, the project made use of newspaper, radio, filmstrips, and newsletter media to publicize the program. Slide and lecture presentations were given at meetings with various local organizations. The parents are involved with school cultural functions, such as Puerto Rican Discovery Day and school plays, and participate in activities of the bilingual project's advisory board. The board consists of project students' parents who function as advisers. According to the teachers interviewed, at least half the parents in the bilingual project can be expected to come to the school either informally or formally during the year.

PROJECT 37

PROJECT INFORMATION

Project Context and Target Population

Project 37 was initiated in 1971 in grades 1 through 6. It is operating in one of the twenty elementary schools in the District. Bilingual instruction is offered in twenty-one classrooms to a total of 700 students. Approximately 60% of the students are of Hispanic origin: 45% are Puerto Rican; 5%, Cuban; 5%, Dominican; and 5%, Central American. The remaining 40% of the students are blacks.

The project is located in a large metropolitan area which is multi-ethnic. The families who are directly served by the school live in large tenement buildings. The majority of parents are either semiskilled or unskilled laborers whose average annual income ranges from $4,000 to $6,000. About 55% of these families are Spanish monolingual, 30% are English monolingual, and 15% are bilingual.

Goals and/or Objectives

The goals and objectives of this project include the following:

- To maintain and strengthen native-language skills both in English and Spanish
- To improve and expand second-language skills
- To recruit and train bilingual teaching staff including aides and volunteers
- To develop and expand curriculum and resource materials
- To provide parents and the adult community with the opportunity to develop their first- and second-language skills
- To provide the adult community with the opportunity to strengthen and improve the interrelationship between the blacks and Hispanics in the community

Project Staff

The project staff includes a bilingual project director, a project coordinator, an assistant coordinator, five curriculum and materials specialists who are also project teachers, two professional part-time consultants, and four volunteers. There are twenty-one fill-time bilingual teachers and eleven paraprofessional aides who are all bilingual.

The information on the following chart was obtained from questionnaires submitted to the classroom teachers and their aides whose students were included in the Impact Study.

TEACHING STAFF CHARACTERISTICS

	Teachers	Aides
Total number of teachers/aides in Impact Study	9	9
Total number of questionnaires received	7	1
Highest earned college degree:		
No degree		1
Degree or diploma based on less than 4 years of work		
B.A. or B.S.	2	
Teaching credential only		
M.A. or higher	5	
No response		
Type of state teaching credential held:		
Non-credentialed		1
Temporary, provisional, partial-fulfillment, or emergency		
Regular credential	5	
Bilingual-bicultural teaching credential	3	
No response		
Years of full-time teaching experience:		
Less than 1 year		
1 year		1
2 years		
3 years		
4 years		
5-9 years	5	
10-19 years	2	
20-29 years		
30 or more years		
No response		

	Teachers	Aides
Years of teaching in a bilingual program:		
Less than 1 year		
1 year		1
2 years		
3 years		
4 years		
5 years	4	
More than 5 years	3	
No response		
Amount of college training specifically devoted to bilingual-bicultural education:		
1-5 quarter units (1-3 semester hours)	1	
6-15 quarter units (4-10 semester hours)	1	
16-30 quarter units (11-20 semester hours)		
More than 30 quarter units (more than 20 semester hrs.)	5	1
No college training in bilingual-bicultural		
No response		
Amount of time spent in inservice or school district workshops specifically devoted to bilingual-bicultural education:		
1 day or less	1	
2-15 days	2	1
15-30 days		
More than 30 days	4	
None		
No response		

Sources of Project Funding

The following funds were specifically designated for and administered by the bilingual project:

Title VII	$290,000
Other Federal and State	-0-
Other	-0-
TOTAL	$290,000

- Per pupil $414.29

In addition to the above, the following funds were designated for bilingual project schools:

School A

Federal and State	$67,500
Other	-0-
TOTAL	$67,500

- Per pupil $96.43
- Total per pupil additional funds for bilingual project participants $510.72

The federal aid at School A came from Title 1; the state aid included funds for special education and textbooks.

CLASSROOM INFORMATION

Major Features of Classrooms Observed

- Students are tracked according to language dominance and by ability.
- Within a homogeneous ability group, the chronological age of the students may vary from one to three years.
- The content areas of Reading, Mathematics, and Language Arts are semi-departmentalized.
- Each student in a given homeroom has his/her own schedule for the content area and during the day may be instructed by three other teachers and/or aides.

- This school is an open school.
- Instruction is given in six large rooms which run the length of a converted factory.
- Approximately 125 students ranging from kindergarten through sixth grade are in each component.

Impact Study Samples

Initially five classes from second through sixth grades were randomly selected to participate in AIR testing. However, when it was found that students were tracked according to language dominance, and by ability in a highly stratified manner, nine classes were then tested to obtain a more representative sample. Similarly, matched English- and Spanish-dominant components were chosen for observation on the basis of language dominance and ability to provide an accurate picture of the way in which the school is structured for the purpose of instruction. Therefore, two ungraded third-, fourth-, and fifth-grade classes and two ungraded fourth-, fifth-, and sixth-grade classes were chosen.

Major Features

- There are twenty-seven students enrolled in this Spanish-dominant homeroom: nineteen Puerto Ricans, two Dominicans, two Central Americans, and four South Americans.
- There are no native-English speakers in this class.
- The classroom teacher is a bilingual of Hispanic ethnicity.
- She teaches Spanish Reading, Spanish as a Second Language, Mathematics, Science, and Social Studies.
- She has a part-time student-teacher assisting four days a week.
- A team-teacher teaches Science forty-five minutes weekly.
- Nine other teachers teach in the content areas of Reading, Mathematics, and English as a Second Language.
- Five aides, other than the aforementioned, also instruct some of these students.

Spanish Language Instruction for Native-Spanish Speakers

Spanish Reading is taught forty-five minutes daily. There are two ability groupings within this class. The twenty-seven students in the top group are reading at grade level and are instructed by the teacher. The slower group, reading at second-grade, eight-month level is instructed by the aide. Both groups of students are using the appropriate textbooks in the Santillana series. Oral reading, as well as work in reading comprehension, is done within the groups. Students do their written work in workbooks which come with the series. The advanced group also must write book reports and do creative writing. Oral work includes plays, poetry, and storytelling. The teacher often gives her students dictations to check on their spelling and punctuation. There is a library in the room that students use for reading enrichment. Within the larger group, whole-group instruction is generally given with some individualization according to need.

English Language Instruction for Native-Spanish Speakers

The English as a Second Language class was not observed because all the students went to four different teachers for instruction. Since students are grouped by ability, each goes to an ESL class which is appropriate for his/her level of competence.

Mathematics Instruction

Mathematics is taught forty-five minutes daily to seventeen students, seven of whom are instructed by the classroom aide because they are somewhat slower and need special attention. The advanced group works with the classroom teacher. The textbook used by both groups is entitled Matematicas Modernas, published by Acesor Editorial in Mexico. The students are required to keep a notebook with their Mathematics assignments. They are studying addition, subtraction, multiplication, division, fractions, measurement, and some geometry. They also are learning the new math. The teacher uses locally developed flash cards, games, and charts as instructional aids as well as commercially produced exercise sheets. The language of instruction is Spanish.

Cultural Component

Social Studies is taught twice a week for a total of ninety minutes. The students enrolled in the homeroom receive instruction in Spanish from both the classroom teacher and the aide. Two books are used as the basis for the course, Regions and Social Needs (Laidlaw) and La Vida de Hombre (Anaya). The latter is a fifth-grade textbook that the teacher adapts to the level of the students. The teacher also uses the newspapers Hoy Dia, El Sol, and ¿Que Tal? as reading material for the course. Students study geography, history, holidays, and famous people and learn songs and legends.

Instructional Strategies for the Combined Grades 3, 4, and 5 English-Dominant Bilingual Classroom

Major Features

- There are thirty-one students enrolled in this homeroom: twenty-five Puerto Ricans, five black non-Hispanics, and one Dominican.
- The classroom teacher is bilingual of Hispanic ethnicity.
- A bilingual aide works with this teacher 1 1/2 hours daily.
- The classroom teacher teaches English Reading, Spanish Language Arts, Mathematics, Social Studies, and Science.
- He team-teaches Science with another full-time teacher forty-five minutes weekly.

English Language Instruction for Native-English and Native-Spanish Speakers

English Reading instruction is given forty-five minutes daily to twenty-four students by the teacher and aide. Three strategies are used for instruction including whole-group instruction in the areas of capitalization, punctuation, spelling, grammar, plays, and poetry. Once each week students are grouped for Reading. There are two groups of twelve students each, both of which are taught by the aide and the teacher. Students do oral reading in the Bank Street Readers and answer comprehension questions. They also work on phonics. Students also do independent work using the New Practice Readers published by McGraw-Hill. This programmed series has reading passages, comprehension questions, vocabulary lists, and a student self-check list.

Spanish Language Instruction for Native-Spanish and Native-English Speakers

Spanish instruction is given daily for forty-five minutes by the classroom teacher. Five of his homeroom students, in addition to nineteen other students from different homerooms, take this class. Students are instructed as an entire group with individualization when necessary. The students use a grammar book and accompanying workbook entitled *Lengua Española* published by Cultural Puerto Riquena, Inc. The teacher also bases his grammar lessons on two other textbooks: *Lengua Española* by Almendos Alvera, Publicaciones Cultura, S.A., printed in Guatemala; and *Gramática Española* by Vega, published by Argentia in Ecuador. In addition the students must write compositions and short book reports based on books they can obtain from the class library. The teacher also has the students use a tape recorder in class to improve their oral skills. Every two weeks he has the students work on Spanish crossword puzzles, and, to make the grammar lessons more interesting, he has the students learn tongue twisters which contain the rules he wishes them to learn. The language of instruction in this class is Spanish.

Mathematics Instruction

Mathematics is taught to seventeen students, forty-five minutes each day. The languages of instruction are English (75%) and Spanish (25%). The latter is used more to clarify certain points that students may not comprehend in English. The class is taught as an entire group by the classroom teacher. The textbook the students are using is entitled *Investigating School Mathematics* (Addison-Wesley). Students are learning addition, subtraction, multiplication, beginning division, and measurement. They are also learning the new math. The students do their computations on commercial and locally produced worksheets and also in their workbooks.

Cultural Component

Social Studies is taught twice each week for forty-five minutes a day. The class is a regular part of the school curriculum. The students study Geography, History, famous people, and Art. According to the classroom teacher, this course is taught bilingually.

Instructional Strategies for the Combined Grades 4, 5, and 6 Spanish-Dominant Bilingual Classroom

Major Features

- The Spanish-dominant bilingual class has an enrollment of thirty students including twenty-two Puerto Ricans and eight Dominicans.
- The teacher is bilingual and gives instruction to those placed in his classes in Spanish Reading, Spanish as a Second Language (SSL), Mathematics, Science, and Social Studies.
- There are seven other teachers who instruct students enrolled in this homeroom in the aforementioned content areas with the exception of English as a Second Language (ESL).

Spanish Language Instruction for Native-Spanish Speakers

Spanish Reading instruction is given forty-five minutes daily to twenty-eight students. The classroom teacher is assisted by two paraprofessional aides. There are three ability groupings within this class. The eighteen students in the top group are instructed by the teacher. Each of the aides works with six students, and one group is slower than the other. Students are reading in the textbooks Nuestro Mundo Maravilloso and Senda, published in the Santillana series. Students read orally and silently, answer Reading comprehension questions, and use workbooks to improve their writing skills. Written work includes capitalization, punctuation, spelling, and creative writing. Oral work includes plays, poetry, choral reading, and discussion. Often the teacher will read stories aloud to the students.

In the top group, students do assignments from the blackboard, and read a Spanish-language newspaper as supplementary material. Students spend much more time doing independent work in this group and receive individualized instruction when necessary.

The lowest group needs the most individualized attention and spends much time with the aide practicing oral reading and intonation, with special emphasis in developing their written skills.

English Language Instruction for Native-Spanish Speakers

The students in this class receive forty-five minutes of ESL instruction daily from two other classroom teachers.

Mathematics Instruction

Mathematics is taught by the homeroom teacher in conjunction with an aide forty-five minutes daily. There are twenty-one students in this class, and there are two ability groupings. The top group of sixteen students is instructed by the teacher, and the lower group of five by the aide. The textbook used is Aritmetica, Level 4. Students are studying addition, subtraction, multiplication, division, fractions measurement, and some geometry. They are learning concepts related to the new math in addition to traditional Mathematics. This class is instructed in English and Spanish with Spanish being used more frequently than English since all the students are Spanish-dominant bilinguals. Students use worksheets as well as workbooks for written exercises. Group instruction is given when new material is introduced, and students spend much time on independent work. The teacher also individualizes instruction whenever necessary.

Cultural Component

Social Studies is taught forty-five minutes daily to the homeroom students. The course is a regular part of the bilingual/bicultural program. There are three ability groupings and the classroom teacher instructs eighteen pupils. Two aides work with six students each. The textbook used for the course is entitled El Mundo y Mi Isla (The World and My Island). Once a week students see films related to Social Studies. As part of the curriculum they study History, Geography, famous people, legends, and holidays. The classroom teacher spends thirty minutes weekly on folklore and Spanish games.

Instructional Strategies for the Combined Grades 4, 5, and 6 English Dominant Bilingual Classroom

Major Features

- The English-dominant bilingual component has an enrollment of thirty students: twelve Puerto Ricans, fifteen black non-Hispanics, and one student each of Central American, South American, and Mexican ethnicity.
- The homeroom teacher is bilingual and teaches English Reading, ESL, Mathematics, Science, and Social Studies.
- Many of the students enrolled in his class are receiving instruction from at least two other teachers in the area of either Reading, Language, or Mathematics. The total number of other teachers giving instruction to students in this class is sixteen.
- Four aides instruct several of these students throughout the day.
- The English-dominant students receive SSL instruction from other teachers.

English Language Instruction for Native-English Speakers

English language instruction is given fifty minutes each day to the twenty-two students who have been placed in this class. The students are reading on the fifth-grade level or above, and the class is instructed as an entire group two days each week. During group Reading instruction, the students use cards from the Reach Kit. The teacher presents new vocabulary words to the class and then has the students read silently from these cards. After students have read the stories or passages, they discuss them as a group. The following day, students must complete Reading comprehension questions and do follow-up grammatical exercises. During the other classes, students do independent work using the SRA Reading lab cards, and also the Specific Skills series, which are both programmed instructional materials. For Reading enrichment, they use textbooks from from the classroom library. Students also spend time learning grammar and writing compositions based on pictures the teacher shows them or on experiences they have outside the class. The teacher also has students listen to records to improve their listening skills. Every two weeks, one period is spent on literature during which time students study fables, legends, and music. The classroom teacher also gives the students individualized work sheets which must be completed and turned in every eight weeks for teacher comments and assessment.

English Language Instruction for Native-Spanish Speakers

There are twenty students receiving ESL instruction from this teacher forty-five minutes each day. Of these students, five are also enrolled in the homeroom. The remaining homeroom students receive either ESL or SSL instruction from seven other classroom teachers. English is used almost exclusively in this class, and Spanish is just used for clarification. Since most of the students are on the intermediate level, much stress is given to Reading and writing. Students are reading from the book entitled English Around the World and are using a workbook called English Language and Patterns. The teacher also uses records such as the Littlest Outlaw as the basis for listening comprehension exercises and for teaching American folklore. He also uses filmstrips without dialogue so that the students can describe the story. Often, discussions are held based on current events or on themes of interest to the students. All students are required to write short book reports based on either books or stories they can read in the classroom library. The teacher also has the students learn songs as the basis for new vocabulary and to hold the students' interest.

Mathematics Instruction

Mathematics instruction is given forty-five minutes daily to twenty-four students. The class is taught as an entire group and the textbook they are using is entitled Investigating School Math, Level 5, published by Addison-Wesley. The students are studying addition, subtraction, division, fraction, decimals, word problems, and some geometry. They use workbooks, exercise sheets, and the Hayes Duplicating Masters for Math, Levels 4-5. The latter are only used for the purpose of review. The languages of instruction are both Spanish and English. Manipulative objects such as Algebricks and Cuisenaire rods are also used.

Cultural Component

Social Studies is taught twice each week for a total of ninety minutes. The students do not use textbooks but instead use atlases and magazines as materials. Students study Geography and History, learn about famous people, paint culturally oriented murals, and learn songs. The teacher spends much time on cultural awareness. His focus is on Puerto Rican heritage, and the importance of black and Caribbean cultures. Often he will use History and Art as the media of instruction. He does not limit his class to the Hispanic and black cultures but tries to bring in a multicultural approach, including American history and international figures such as Ghandi. He also stresses a common Hispanic culture as opposed to nationalism. During the year the students have observed Puerto Rican Discovery Day, Black History Week, and the Bicentennial. Instruction is given both in English and in Spanish.

Parent and Community Involvement

According to the classroom teacher of the third- and fourth-grade Spanish-dominant classroom, almost all of the parents of her homeroom students have participated in the parent conferences twice this year. On an informal basis, at least ten parents have come to school for their children's birthday parties, and four parents have come with the class on field trips.

Seventeen parents of students in the third-, fourth-, and fifth-grade English-dominant classroom have come twice this year for conferences with the teacher on student performance. Five parents come to the class on an informal basis, and three parents have come for class parties.

In the fourth-, fifth-, and sixth-grade Spanish-dominant classroom, there are two scheduled parent conferences yearly, and approximately twenty-four parents attend. On an informal basis, eight parents visit the school and talk with this teacher about student progress.

In the fourth-, fifth-, and sixth-grade English-dominant classroom, there are two scheduled conferences each year given in the morning and evening. The homeroom teacher has seen at least one parent of each student this year (1975-76). He also contacts them by phone, makes home visits, or contacts them by letter when necessary. Some of the students have a daily log book about their school performance which they bring home for their parents to sign. This is done only upon parental request. There are five field trips throughout the year, and two parents have joined the students for these activities.